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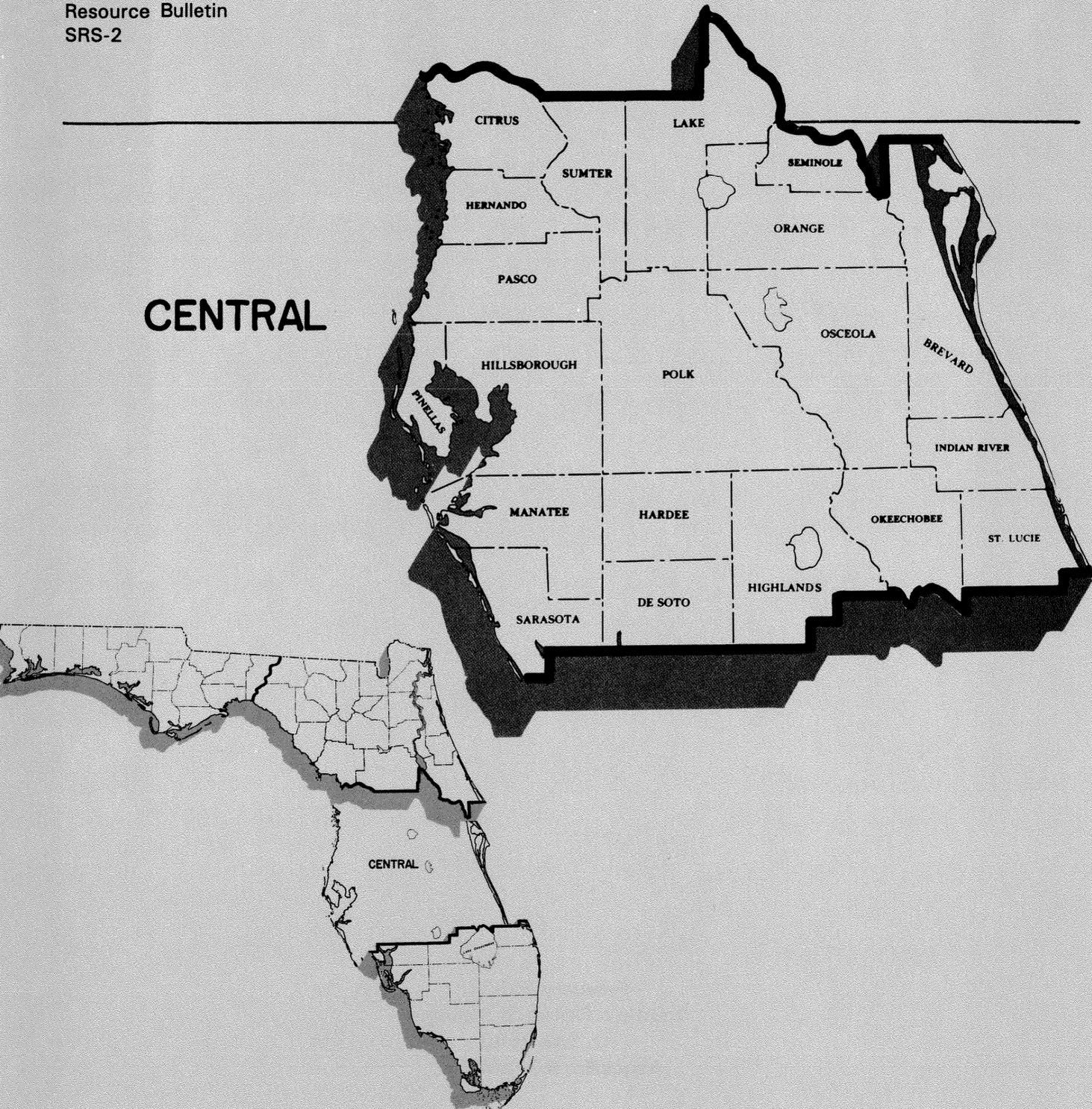
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Forest Statistics for Central Florida, 1995

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Foreword

This report highlights the principal findings of the seventh forest survey of Central Florida. Field work began in February 1995 and was completed in May 1995. Six previous surveys, completed in 1936, 1949, 1959, 1970, 1980, and 1988 provide statistics for measuring changes and trends over the past 59 years. This report primarily emphasizes the changes and trends since 1988.

Periodic surveys of forest resources are authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. These surveys are a continuing, nationwide undertaking by the Regional Experiment Stations of the USDA Forest Service. In the Southern United States, these surveys are conducted by two Forest Inventory and Analysis (FIA) Research Work Units at the Southern Research Station, Asheville, NC. The two FIA units, one located in Starkville, MS, and the other in Asheville, NC, are responsible for inventories of 13 Southern States and the Commonwealth of Puerto Rico. The primary objective of these surveys is to periodically inventory and evaluate all forest and related resources. These multiresource data help provide a basis for formulating forest policies and programs and for the orderly development and use of the resources. This report deals only with the extent and condition of forest land, associated timber volumes, and rates of timber growth, mortality, and removals.

Additional information about any aspect of this survey may be obtained from:

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Acknowledgments

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The following members of the FIA staff collected the field data:

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^a All tables in this report are available in Microsoft® Excel workbook files. These files will be supplied, upon request, on 3½- or 5¼-inch diskettes.

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Introduction

This report summarizes results from a 1995 inventory of the forest resources of Central Florida. Current estimates of forest area, related attributes, and timber volumes are presented and compared with earlier estimates. Timber volumes reported in previous bulletins have been adjusted for valid comparisons with current assessments. Average annual rates of growth, removals, and mortality since the previous inventory in 1988 are summarized.

Highlights

Since 1988 in Central Florida—

- *area of timberland decreased by 8 percent to 2.1 million acres.* The 200,000 acre net loss resulted from the diversion of 300,000 acres of timberland to other land uses and the return to timberland of about 100,000 acres. One-half of the diverted timberland went into urban and related land uses. Transfer of timberland to a reserved status accounted for 31 percent of the diversions. Agricultural land uses took 17 percent of the diverted timberland.

- *area of nonindustrial private forest (NIPF) land decreased by 11 percent to 1.6 million acres.* NIPF lands comprise 75 percent of the timberland, down from 77 percent in 1988. In contrast, public ownership of timberland has increased by 13 percent to more than one-half million acres (526,000 acres). This increase occurred exclusively on State-owned lands. National forest timberland was essentially unchanged at 70,000 acres. Forest industry formerly held less than 3 percent of the timberland, but no samples were classified as forest industry in this survey.

- *area classed as pine types decreased by 11 percent to 623,000 acres.* However, area classed as oak-pine type increased by 31 percent to 221,000 acres. Area classed as hardwood types decreased by 12 percent to less than 1.3 million acres. Oak-gum-cypress type accounts for 806,000 acres of the lowland hardwoods and remains the most abundant forest type. Slash pine continues as the second most abundant forest type with 392,000 acres, a drop of 4 percent. Longleaf pine type continues its downward trend, dropping 25 percent to 110,000 acres. Other pine types that declined were sand pine, by 19 percent to 75,000 acres and pond pine, by 18 percent to 41,000 acres. Area in pine plantations increased by 28 percent to 187,000 acres.

- *area of timberland receiving a final harvest and remaining in timberland averaged almost 12,000 acres annually.* Pine types accounted for 61 percent of the harvest annually. Harvest of hardwood types accounted for another 33 percent and oak-pine the remaining 6 percent. NIPF lands accounted for 69 percent of the average annual harvest; public lands 31 percent. In addition to these final harvests, partial harvests and thinnings accounted for an average of 5,600 acres annually. Fire, insects, disease, weather, and other natural agents damaged an average of 21,000 acres each year.

- *an average of 17,000 acres were artificially and naturally regenerated each year.* Almost 12,000 acres were regenerated to new pine stands annually, an area 63 percent larger than the pine acreage harvested annually. About 9,000 acres of the regeneration were established by artificial means. About 84 percent of the artificial regeneration took place on NIPF land and 16 percent on public land. In the case of natural regeneration, 73 percent occurred on NIPF land and 27 percent on public land.

- *average basal area of live trees 5.0 inches d.b.h. and larger increased slightly from 69 to 71 square feet per acre.* About half the region's timberland is classed as poorly stocked. Twenty-eight percent of the timberland is considered medium stocked; 22 percent fully stocked. Merchantable net volume of all live trees averaged 1,449 cubic feet per acre.

- *volume of softwood growing stock increased less than 3 percent to 1.5 billion cubic feet.* Volume changes by ownership parallel acreage changes by ownership. Softwood volume decreased by 4 percent on NIPF lands to 1.1 billion cubic feet while it increased by 42 percent on public lands to 0.4 billion cubic feet. All softwood species gained in volume except longleaf pine and cypress. Pond cypress is still

the most abundant species, despite a 5 percent decrease to 566 million cubic feet. Slash pine remains second in abundance and increased 10 percent to 425 million cubic feet. Bald cypress dropped by 3 percent to 231 million cubic feet while longleaf pine dropped 2 percent to 114 million cubic feet. Volume of softwood sawtimber increased nearly 10 percent to 5 billion board feet.

- *volume of hardwood growing stock increased nearly 8 percent to more than 1.1 billion cubic feet.* Hardwood volume on NIPF land changed little at 817 million cubic feet, but increased 47 percent on public lands to 318 million cubic feet. Hardwood volumes by owner were altered by State acquisitions of land. Red oaks were the most abundant hardwood species, increasing 26 percent to 223 million cubic feet. Soft maples were second in abundance, rising 14 percent to 188 million cubic feet. Tupelo and blackgum species, while down 2 percent, were third with 160 million cubic feet. Bay and magnolia species were up 8 percent to 155 million cubic feet. Volume of ash was down 5 percent to 133 million cubic feet while white oak volume increased 7 percent to 116 million cubic feet. Hardwood sawtimber increased by 13 percent to 3.5 billion board feet.

- *net annual growth of growing stock averaged more than 66 million cubic feet, down 31 percent.* Net growth per acre averaged almost 28 cubic feet, down from 41 cubic feet. Softwood growth was down 31 percent to 43 million cubic feet and hardwood growth was down 29 percent to 23 million cubic feet. Softwood growth was down 3 percent on public ownerships. Most of the decline in softwood growth occurred on NIPF lands where it fell 35 percent. Hardwood growth decreased 29 percent on public land and 28 percent on NIPF land. Net annual growth for all species includes 268 million board feet of sawtimber, down by 33 percent.

- *annual removals of growing stock averaged less than 51 million cubic feet, up 16 percent.* At 38 million cubic feet, softwood removals remained at the 1988 level. Hardwood removals more than doubled to almost 13 million cubic feet, one-fourth of total removals. About 80 percent of softwood removals occurred on NIPF land; 20 percent on public land. The source of hardwood removals differed, with 58 percent occurring on NIPF lands and 42 percent on public lands. Annual removals of growing stock included 157 million board feet of sawtimber, up 3 percent. Softwood growth exceeds removals by 13 percent, and hardwood growth exceeds removals by 87 percent.

- *annual mortality of growing stock averaged more than 24 million cubic feet, up almost 8 percent.* Hardwoods accounted for 58 percent of the mortality. Hardwood mortality was up 16 percent and softwood mortality down 2 percent. The leading identifiable cause of death to softwoods was weather, which accounted for 39 percent of the mortality. Insects caused 20 percent of the softwood mortality. Weather was also identified as the leading cause of hardwood mortality at 33 percent. About 17 percent of hardwood mortality was attributed to disease and 15 percent to suppression. Annual mortality of all growing stock included 83 million board feet of sawtimber, an increase of 31 percent. Mortality reduced gross growth of softwoods by 19 percent and hardwoods by 38 percent.

How the Inventory is Made

Procedures used in the seventh inventory of the forest resources in Central Florida included six basic steps.

1. Estimates of forest and nonforest areas were based on the ground classification of 3,872 sample clusters systematically distributed within the 20-county area. At each of the sample clusters, 16 points were classified as to land use.

2. Estimates of timber volume and forest classification were based on measurements recorded at 802 ground sample locations systematically distributed on timberland. The plot design at each location was based on a cluster of 10 points. In most cases, variable plots, established by using a basal-area factor of 37.5 square feet per acre, were systematically spaced within a single forest condition at 5 of the 10 cluster points. Trees less than 5 inches d.b.h. were tallied on a fixed-radius plot around each point center.

3. Equations prepared from detailed measurements collected on standing trees in this Survey Unit, and similar measurements taken throughout the Southeast, were used to compute the volume of individual tally trees. A mirror caliper and sectional aluminum poles were used to obtain the additional measurements required to construct volume equations. Forest biomass estimates were made from equations developed by the Utilization of Southern Timber Research Work Unit, Southern Research Station, Athens, GA.

4. Estimates of growth, removals, and mortality were determined from the remeasurement of 862 permanent sample plots established in the sixth survey.

5. Ownership information was collected from correspondence, public records, and local contacts. In counties where the sample missed a particular ownership class, temporary sample plots were added.

6. All field data were sent to Asheville for editing and were entered into disk and magnetic-tape storage for processing. Final estimates were based on statistical summaries of the data.

Statistical Reliability

FIA inventories employ sampling methods designed to achieve reliable statistics at the Survey Unit and State levels. A measure of reliability of inventory statistics is provided by sampling errors. These sampling errors mean that the chances are two out of three that the true population value is within the limits indicated by a confidence interval. Sampling errors (in percent) and associated confidence intervals around the sample estimates for timberland area, inventory volumes, and components of change are presented in the following table.

Item	Sample estimate and confidence interval	Sampling error (percent)
Timberland (1,000 acres)	2,123.4 ± 45.7	2.15
Growing stock (M ft³)		
Inventory	2,634.9 ± 123.6	4.69
Net annual growth	66.4 ± 3.7	5.55
Annual removals	50.5 ± 6.1	12.15
Annual mortality	24.5 ± 2.3	9.23
Sawtimber (M fbm)		
Inventory	8,513.5 ± 435.9	5.12
Net annual growth	268.4 ± 16.3	6.09
Annual removals	157.2 ± 20.8	13.23
Annual mortality	83.1 ± 9.1	10.95

Sampling error increases as the area or volume considered decreases in magnitude. Sampling errors and associated confidence intervals are often unacceptably high for small components of the total resource. Statistical confidence may be computed for any subdivision of Survey Unit or State totals using the following formula. Sampling errors obtained from this method are only approximations of reliability because this process assumes constant variance across all subdivisions of totals.

$$SE_s = SE_t \frac{\sqrt{X_t}}{\sqrt{X_s}},$$

where

SE_s = sampling error for subdivision of Survey Unit or State total,

SE_t = sampling error for Survey Unit or State total,

X_s = sum of values for the variable of interest (area or volume) for subdivision of Survey Unit or State,

X_t = total area or volume for Survey Unit or State.

For example, the estimate of sampling error for growing-stock volume on public timberland is computed as:

$$SE_s = 4.69 \frac{\sqrt{2,634.9}}{\sqrt{730.5}} = 8.91$$

Thus, the sampling error is 8.91 percent, and the resulting confidence interval (two times out of three) for growing-stock inventory on public timberland is 730.5 ± 65.1 million cubic feet.

County statistics are provided, but users are cautioned that the accuracy of individual county data is highly variable. Individual county statistics are provided so that any combination of counties may be added together until the totals are large enough to meet the desired degree of reliability. Sampling errors for key resource items for individual counties are provided in the following table.

Sampling errors for county and unit totals, in terms of one standard error, Central Florida, 1995

County	Timberland area	Cubic-foot volume of growing stock		
		Inventory	Growth	Removals
		<i>Sampling error^a</i>		
Brevard	11.65	25.73	25.62	52.59
Citrus	5.89	16.55	16.99	29.41
De Soto	16.18	32.08	33.11	58.33
Hardee	12.07	22.24	22.28	100.73
Hernando	6.73	14.83	20.67	43.66
Highlands	12.60	26.02	35.64	77.18
Hillsborough	10.78	20.78	21.70	59.70
Indian River	22.59	46.14	121.74	103.76
Lake	5.94	13.03	20.98	40.23
Manatee	13.51	30.44	31.14	85.10
Okeechobee	15.03	26.45	25.11	74.50
Orange	8.28	17.25	17.27	38.59
Osceola	7.96	15.05	20.41	68.20
Pasco	7.65	18.17	32.33	32.64
Pinellas	48.86	111.25	110.69	129.56
Polk	6.88	14.68	13.86	35.01
St. Lucie	21.31	39.04	32.71	51.72
Sarasota	14.10	26.91	28.46	41.76
Seminole	10.59	21.51	27.38	74.32
Sumter	7.78	14.39	19.92	46.16
Total	2.15	4.69	5.55	12.15

^a By random-sampling formula (in percent).

Definitions

Basal area. The area in square feet of the cross section at breast height of a single tree or of all the trees in a stand, usually expressed in square feet per acre.

Biomass. The aboveground green weight of solid wood and bark in live trees 1.0 inch d.b.h. and larger from the ground to the tip of the tree. All foliage is excluded. The weight of wood and bark in lateral limbs, secondary limbs, and twigs under 0.5 inch in diameter at the point of occurrence on sapling-size trees is included but is excluded on poletimber and sawtimber-size trees.

Bole. That portion of a tree between a 1-foot stump and a 4-inch top diameter outside bark (d.o.b.) in trees 5.0 inches d.b.h. and larger.

Broad management class. A classification of timberland based on forest type and stand origin.

Pine plantation. Stands that have been artificially regenerated by planting or direct seeding and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Natural pine. Stands that have not been artificially regenerated and with a southern yellow pine, white pine-hemlock, or other softwood forest type.

Oak-pine. Stands with a forest type of oak-pine.

Upland hardwood. Stands with a forest type of oak-hickory, chestnut oak, southern scrub oak, or maple-beech-birch.

Lowland hardwood. Stands with a forest type of oak-gum-cypress, elm-ash-cottonwood, palm, or other tropical.

Census water. Streams, sloughs, estuaries, canals, and other moving bodies of water 200 feet wide and greater, and lakes, reservoirs, ponds, and other permanent bodies of water 4.5 acres in area and greater.

Commercial forest land. (see: Timberland).

Commercial species. Tree species currently or potentially suitable for industrial wood products. Noncommercial species are excluded.

Cropland. Land under cultivation within the past 24 months, including orchards and land in soil-improving crops but excluding land cultivated in developing improved pasture. Also includes idle farmland.

D.b.h. Tree diameter in inches (outside bark) at breast height (4.5 feet above the ground).

Diameter class. A classification of trees based on tree d.b.h. Two-inch diameter classes are commonly used by Forest Inventory and Analysis, with the even inch as the approximate midpoint for a class. For example, the 6-inch class includes trees 5.0-6.9 inches d.b.h.

Farm. Land on which agricultural operations are being conducted and sale of agricultural products totaled \$1,000 or more during the year.

Farm operator. A person who operates a farm, either doing the work or directly supervising the work.

Farmer-owned land. (see: Other private land).

Forest industry land. Land owned by companies or individuals operating primary wood-using plants.

Forest industry-leased land. Land leased or under management contracts to forest industry from other owners for periods of one forest rotation or longer. Land under cutting contracts is not included.

Forest land. Land at least 16.7 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use.

Forest type. A classification of forest land based on the species forming a plurality of live-tree stocking.

White pine-hemlock. Forests in which eastern white pine, red pine, or jack pine, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, birch, and maple.)

Spruce-fir. Forests in which spruce or true firs, singly or in combination, constitute a plurality of the stocking. (Common associates include maple, birch, and hemlock.)

Longleaf-slash pine. Forests in which longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Loblolly-shortleaf pine. Forests in which loblolly pine, shortleaf pine, or other southern yellow pines, except longleaf or slash pine, singly or in combination, constitute a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Oak-pine. Forests in which hardwoods (usually upland oaks) constitute a plurality of the stocking but in which pines account for 25 to 50 percent of the stocking. (Common associates include gum, hickory, and yellow-poplar.)

Oak-hickory. Forests in which upland oaks or hickory, singly or in combination, constitute a plurality of the stocking, except where pines account for 5 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include yellow-poplar, elm, maple, and black walnut.)

Oak-gum-cypress. Bottom-land forests in which tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, constitute a plurality of the stocking, except where pines account for 25 to 50 percent, in which case the stand would be classified oak-pine. (Common associates include cottonwood, willow, ash, elm, hackberry, and maple.)

Elm-ash-cottonwood. Forests in which elm, ash, or cottonwood, singly or in combination, constitute a plurality of the stocking. (Common associates include willow, sycamore, beech, and maple.)

Maple-beech-birch. Forests in which maple, beech, or yellow birch, singly or in combination, constitute a plurality of the stocking. (Common associates include hemlock, elm, basswood, and white pine.)

Palm, other tropicals. Forests in which palms and other tropicals constitute a plurality of the stocking.

Gross growth. Annual increase in merchantable volume of trees in the absence of cutting and mortality. (Gross growth includes survivor growth, ingrowth, growth on ingrowth, growth on removals prior to removal, and growth on mortality prior to death.)

Growing-stock trees. Live sawtimber-size trees of commercial species containing at least a 12-foot log, or two noncontiguous saw logs each 8 feet or longer, meeting minimum grade requirements (hardwoods

must qualify as a log grade of either 3 or 4; softwoods must qualify as a log grade 3) with at least one-third of the gross board-foot volume (International 1/4-inch rule) between a 1-foot stump and the minimum saw-log top being sound, or a live tree below sawtimber size that will prospectively qualify under the above standards.

Growing-stock volume. Volume (cubic feet) of solid wood in growing-stock trees 5.0 inches d.b.h. and larger, from a 1-foot stump to a minimum 4.0-inch top diameter, outside bark, on the central stem. Volume of solid wood in primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Hardwoods. Angiosperms; dicotyledonous trees (including all palm species which are monocotyledonous), usually broadleaf and deciduous.

Soft hardwoods. Soft-textured hardwoods such as boxelder, red and silver maples, hackberry, loblolly-bay, sweetgum, yellow-poplar, magnolia, sweet-bay, water tupelo, blackgum, sycamore, cottonwood, black cherry, willow, basswood, and elm.

Hard hardwoods. Hard-textured hardwoods such as sugar maple, birch, hickory, dogwood, persimmon (forest grown), black locust, beech, ash, honey-locust, holly, black walnut, mulberry, and all commercial oaks.

Idle farmland. Cropland, orchard, improved pasture, and farm sites not tended within the past 2 years, and currently less than 16.7 percent stocked with live trees.

Improved pasture. Land currently improved for grazing by cultivation, seeding, irrigation, or clearing of trees or brush.

Industrial wood. All roundwood products except fuelwood.

Ingrowth. The number or net volume of trees that grow large enough during a specified year to qualify as saplings, poletimber, or sawtimber.

Land area. The area of dry land and land temporarily or partly covered by water such as marshes, swamps, and river floodplains (omitting tidal flats below mean high tide), streams, sloughs, estuaries, and canals less than 200 feet wide, and lakes, reservoirs, and ponds less than 4.5 acres in area.

Live trees. All trees 1.0 inch d.b.h. and larger which are not dead at the time of inventory.

Live-tree volume. Volume (cubic feet) of wood above the ground line in live trees 1.0 inch d.b.h. and larger. The volume in twigs and lateral limbs smaller than 0.5 inch in diameter at the point of occurrence on sapling-size trees is included but is excluded on poletimber and sawtimbersize trees.

Log grade. A classification of logs based on external characteristics as indicators of quality or value.

Logging residues. The unused merchantable portion of growing-stock trees cut or destroyed during logging operations.

Manageable stand. Timberland at least 60 percent stocked with growing-stock trees that can be featured together under a management scheme.

Merchantable portion. That portion of live trees 5.0 inches d.b.h. and larger between a 1-foot stump and a minimum 4.0-inch top diameter outside bark on the central stem. That portion of primary forks from the point of occurrence to a minimum 4.0-inch top diameter outside bark is included.

Merchantable volume. Solid-wood volume in merchantable portion of live trees.

Miscellaneous Federal land. Federal land other than National forests, land administered by the Bureau of Land Management, and land administered by the Bureau of Indian Affairs.

Miscellaneous private land. (see: Other private land).

Mortality. The merchantable volume in trees that have died from natural causes during a specified period.

National forest land. Federal land that has been legally designated as national forests or purchase units, and other land under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III land.

Net annual growth. The net change in merchantable volume for a specific year in the absence of cutting (gross growth minus mortality for that specified year).

Net volume. Gross volume of wood less deductions for rot, sweep, or other defect affecting use for timber products.

Noncommercial species. Tree species of typically small size, poor form, or inferior quality which normally do not develop into trees suitable for industrial wood products.

Nonforest land. Land that has never supported forests and land formerly forested where timber production is precluded by development for other uses.

Nonindustrial private forest (NIPF) land. (see: Other private land).

Nonstocked forest land. Timberland less than 16.7 percent stocked with growing-stock trees.

Other private land. Privately owned land excluding forest industry land or forest industry-leased land. Also referred to as nonindustrial private forest (NIPF) land.

Farmer-owned land. Owned by farm operators, excluding incorporated farm ownerships.

Other individual land. Owned by individuals other than farm operators.

Other corporate land. Owned by corporations, including incorporated farm ownerships.

Other removals. The growing-stock volume of trees removed from the inventory by cultural operations such as timber stand improvement, land clearing, and other changes in land use that result in the removal of the trees from timberland.

Plant residues. Wood material generated in the production of timber products at primary manufacturing plants.

Coarse residues. Material, such as slabs, edgings, trim, veneer cores and ends, which is suitable for chipping.

Fine residues. Material, such as sawdust, shavings, and veneer chippings, which is not suitable for chipping.

Plant byproducts. Residues (coarse or fine) utilized in the further manufacture of industrial products or for consumer use, or utilized as fuel.

Unused plant residues. Residues (coarse or fine) that are not used for any product, including fuel.

Poletimber-size trees. Live trees at least 5.0 inches d.b.h. but smaller than sawtimber size.

Primary wood-using plants. Industries that receive roundwood or chips from roundwood for the manufacture of products such as veneer, pulp, and lumber.

Productive-reserved forest land. (see: Reserved timberland).

Rangeland. Land on which the natural vegetation is predominantly native grasses, grasslike plants, forbs, or shrubs valuable for forage, not qualifying as timberland and not developed for another land use. Rangeland includes natural grassland and savannah.

Reserved timberland. Forest land sufficiently productive to qualify as timberland, but withdrawn from timber utilization through statute or administrative designation.

Rotten trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of rot or missing sections, and with less than one-third of the gross board-foot tree volume in sound material.

Rough trees. Live trees of commercial species that do not contain at least one 12-foot saw log, or two noncontiguous saw logs, each 8 feet or longer, now or prospectively, primarily because of roughness, poor form, splits, and cracks, and with less than one-third of the gross board-foot tree volume in sound material; and live trees of noncommercial species.

Roundwood (roundwood logs). Logs, bolts, or other round sections cut from trees for industrial or consumer uses.

Roundwood chipped. Any timber cut primarily for pulpwood, delivered to nonpulpmills, chipped, and then sold to pulpmills as residues, including chipped tops, jump sections, whole trees, and pulpwood sticks.

Roundwood products. Any primary product such as lumber, poles, pilings, pulp, or fuelwood which is produced from roundwood.

Salvable dead trees. Standing or down dead trees considered utilizable by Forest Inventory and Analysis standards.

Saplings. Live trees 1.0 to 5.0 inches d.b.h.

Saw log. A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with a minimum diameter inside bark for softwoods of 6 inches (8 inches for hardwoods).

Saw-log portion. That part of the bole of sawtimber trees between a 1-foot stump and the saw-log top, including the portion of forks large enough to contain a saw log.

Saw-log top. The point on the bole of sawtimber trees above which a conventional saw log cannot be produced. The minimum saw-log top is 7.0 inches in diameter outside bark (d.o.b.) for softwoods and 9.0 inches d.o.b. for hardwoods.

Sawtimber-size trees. Softwoods 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

Sawtimber volume. Growing-stock volume in the saw-log portion of sawtimber-size trees in board feet (International 1/4-inch rule).

Seedlings. Trees less than 1.0 inch in d.b.h. Only seedlings of a commercial species that are not overtopped and are more than 6 inches tall for softwoods and 1 foot tall for hardwoods are counted.

Site class. A classification of forest land in terms of inherent capacity to grow crops of industrial wood based on fully stocked natural stands, by annual production capacity.

Softwoods. Gymnosperms; in the order Coniferales, usually evergreen (includes the genus *Taxodium* which is deciduous), having needles or scalelike leaves.

Pines. Yellow pine species which include loblolly, longleaf, slash, pond, shortleaf, pitch, Virginia, sand, spruce, and Table Mountain pines.

Other softwoods. Cypress, eastern red-cedar, white cedar, eastern white pine, eastern hemlock, spruce, and fir.

Stand-size class. A classification of forest land based on the diameter class distribution of live trees in the stand.

Sawtimber stands. Stands at least 16.7 percent stocked with live trees, with half or more of total stocking in sawtimber and poletimber trees, and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands. Stands at least 16.7 percent stocked with live trees, of which half or more of total stocking is in poletimber and sawtimber trees, and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands. Stands at least 16.7 percent stocked with live trees of which more than half of total stocking is saplings and seedlings.

State, county, and municipal land. Land owned by States, counties, and local public agencies or municipalities, or land leased to these governmental units for 50 years or more.

Stocking. The degree of occupancy of land by trees, measured by basal area or the number of trees in a stand and spacing in the stand, compared with a minimum standard, depending on tree size, required to fully utilize the growth potential of the land.

Fully stocked. 100 percent or more stocking.

Medium stocked. 60 to 99 percent stocking.

Poorly stocked. Less than 60 percent stocking.

Density of trees and basal area per acre required for full stocking

D.b.h. class	Trees per acre for full stocking	Basal area per acre
Seedlings	600	—
2	560	—
4	460	—
6	340	67
8	240	84
10	155	85
12	115	90
14	90	96
16	72	101
18	60	106
20	51	111

Survivor growth. The merchantable volume increment on trees 5.0 inches d.b.h. and larger in the inventory at the beginning of the year and surviving to its end.

Timberland. Forest land that is capable of producing 20 cubic feet of industrial wood per acre per year and not withdrawn from timber utilization.

Timber products. Roundwood products and byproducts.

Timber removals. The merchantable volume of trees removed from the inventory by harvesting, cultural operations such as stand improvement, land clearing, or changes in land use.

Top. The portion of the main stem and forks from a 4.0-inch diameter outside bark to the tips of the main stem and forks, plus all other limbs above the 4.0-inch top at least 0.5 inch in diameter at their point of occurrence.

Treatment opportunity. A classification of the management or treatment that would most improve for timber production the existing condition of the stand being sampled.

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet.

Tree grade. A classification of sawtimber trees based on the log grade of the butt log in the tree.

Unproductive forest land. (see: Woodland).

Upper-stem portion. That part of the main stem or fork of sawtimber trees above the saw-log top to minimum top diameter 4.0 inches outside bark or to the point where the main stem or fork breaks into limbs.

Urban and other areas. Areas developed for residential, industrial, or recreational purposes, school yards, cemeteries, roads, railroads, airports, beaches, powerlines and other rights-of-way, or other nonforest land not included in any other specified land use class.

Woodland. Forest land incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions.

CONVERSION FACTORS

Cubic feet of wood per average cord (excluding bark)

D.b.h. class	All species	Pine	Other softwood	Hardwood
6	61.3	61.0	68.2	60.0
8	69.0	68.1	76.0	68.4
10	74.3	73.1	81.4	73.4
12	77.7	76.7	85.2	76.4
14	80.2	79.4	88.2	78.4
16	81.7	81.6	90.4	79.8
18	82.7	83.3	92.3	80.8
20	83.7	84.8	93.8	81.5
22	84.3	86.0	95.1	82.1
24 +	84.2	87.6	98.5	83.3
Average	73.6	71.0	81.9	74.2

Metric equivalents of units used in this report

1 acre = 4,046.86 square meters or 0.404686 hectare
1 cubic foot = 0.028317 cubic meter
1 inch = 2.54 centimeters or 0.0254 meter
Breast height (4.5 feet) = 1.4 meters above ground level
1 square foot = 929.03 square centimeters or 0.0929 square meter
1 square foot per acre basal area = 0.229568 square meter per hectare
1 pound = 0.454 kilogram
1 ton = 0.907 metric ton

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^a Tables 1, 12, 27, 29, 33, 35, 38, 41, 42, and 44 are common to all Forest Inventory and Analysis forest resource statistical reports of the Eastern United States.

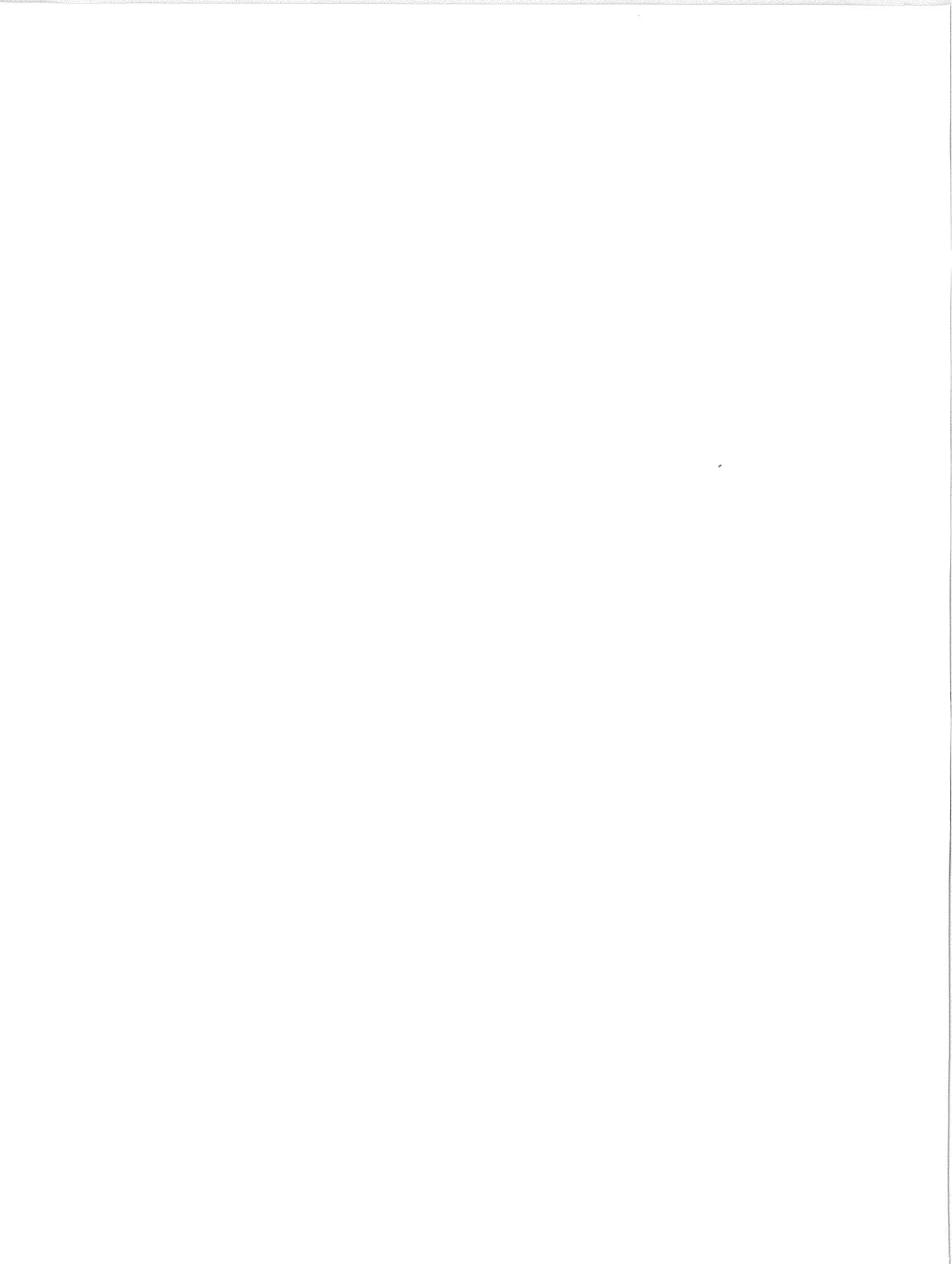


Table 1—Area, by county and land class, Central Florida, 1995

County	All land ^a	Forest land			Reserved timberland	Nonforest land ^b
		Total	Timberland	Woodland		
<i>Acres</i>						
Brevard	651,834	99,954	93,094	6,390	470	551,880
Citrus	373,504	194,786	185,932	5,146	3,708	178,718
De Soto	407,891	47,759	47,759	—	—	360,132
Hardee	407,910	79,530	79,530	—	—	328,380
Hernando	306,112	158,362	155,853	2,349	160	147,750
Highlands	658,227	85,563	78,759	2,835	3,969	572,664
Hillsborough	672,653	122,579	96,466	12,297	13,816	550,074
Indian River	322,080	31,185	22,839	7,146	1,200	290,895
Lake	609,990	269,412	248,490	5,698	15,224	340,578
Manatee	474,368	52,479	40,003	5,666	6,810	421,889
Okeechobee	495,571	45,417	43,331	1,586	500	450,154
Orange	580,883	172,819	149,304	2,556	20,959	408,064
Osceola	846,093	184,464	181,508	2,556	400	661,629
Pasco	476,794	159,460	159,125	157	178	317,334
Pinellas	179,302	18,128	6,460	7,677	3,991	161,174
Polk	1,199,955	283,287	243,155	27,013	13,119	916,668
St. Lucie	366,394	24,524	20,589	3,935	—	341,870
Sarasota	365,920	59,591	48,801	1,132	9,658	306,329
Seminole	197,261	74,473	72,545	—	1,928	122,788
Sumter	349,235	155,538	149,891	5,567	80	193,697
Total	9,941,977	2,319,310	2,123,434	99,706	96,170	7,622,667

^a From the U.S. Bureau of the Census, 1990.

^b Includes 91,426 acres of water according to Forest Inventory and Analysis standards of area classification, but defined by the Bureau of Census as land.

Table 2—Area of timberland, by county and ownership class, Central Florida, 1995

County	All ownerships	Ownership class							
		National forest	Miscellaneous Federal	State	County and municipal	Forest industry ^a	Other private		
<i>Acres</i>									
							Farmer	Corporate	Individual
Brevard	93,094	—	12,462	5,105	490	—	4,841	43,570	26,626
Citrus	185,932	—	—	48,530	706	—	—	49,211	87,485
De Soto	47,759	—	—	3,066	64	—	17,356	12,397	14,876
Hardee	79,530	—	—	727	80	—	25,048	28,627	25,048
Hernando	155,853	—	707	55,344	1,630	—	—	34,493	63,679
Highlands	78,759	—	22,500	460	90	—	14,660	32,253	8,796
Hillsborough	96,466	—	—	14,369	3,480	—	5,241	44,550	28,826
Indian River	22,839	—	—	691	155	—	—	17,106	4,887
Lake	248,490	69,407	280	20,081	750	—	14,582	48,607	94,783
Manatee	40,003	—	—	2,870	6,321	—	—	18,487	12,325
Okeechobee	43,331	—	—	692	100	—	—	28,359	14,180
Orange	149,304	—	268	22,422	7,870	—	5,937	65,309	47,498
Osceola	181,508	—	380	31,458	830	—	18,943	67,655	62,242
Pasco	159,125	—	20	59,319	5,885	—	7,413	32,124	54,364
Pinellas	6,460	—	—	1,350	1,231	—	—	2,586	1,293
Polk	243,155	—	15,198	17,832	1,968	—	39,381	84,388	84,388
St. Lucie	20,589	—	—	225	200	—	2,521	10,082	7,561
Sarasota	48,801	—	—	55	2,971	—	2,861	34,331	8,583
Seminole	72,545	—	150	6,185	587	—	7,720	30,881	27,022
Sumter	149,891	—	—	78,216	10	—	8,431	16,862	46,372
Total	2,123,434	69,407	51,965	368,997	35,418	—	174,935	701,878	720,834

^a Includes 0 acres of other private land under long-term lease.

Table 3—Area of timberland, by county and forest-type group, Central Florida, 1995

County	Forest-type group						
	All type groups	Longleaf-slash	Loblolly-shortleaf	Oak-pine	Oak-hickory	Oak-gum-cypress	Elm-ash-cottonwood
<i>Acres</i>							
Brevard	93,094	29,435	7,263	2,421	21,999	31,976	—
Citrus	185,932	34,005	8,202	42,936	62,050	38,739	—
De Soto	47,759	9,916	—	—	23,913	13,930	—
Hardee	79,530	17,892	—	3,579	28,704	29,355	—
Hernando	155,853	31,013	17,550	20,540	65,646	21,104	—
Highlands	78,759	18,796	—	14,228	16,818	28,917	—
Hillsborough	96,466	18,344	—	10,483	11,876	55,763	—
Indian River	22,839	12,218	—	2,444	2,444	5,733	—
Lake	248,490	58,663	40,558	27,088	32,187	89,994	—
Manatee	40,003	13,299	2,054	2,054	10,270	12,326	—
Okeechobee	43,331	11,344	—	2,836	—	29,151	—
Orange	149,304	26,241	20,780	11,874	17,810	72,599	—
Osceola	181,508	27,932	2,706	18,024	19,772	113,074	—
Pasco	159,125	37,850	2,471	16,129	39,019	63,656	—
Pinellas	6,460	—	1,293	1,293	—	3,874	—
Polk	243,155	62,681	5,361	18,777	54,494	101,842	—
St. Lucie	20,589	12,603	200	2,520	—	5,266	—
Sarasota	48,801	23,737	—	424	9,007	15,633	—
Seminole	72,545	11,731	—	15,441	11,580	33,793	—
Sumter	149,891	43,938	12,656	8,126	41,545	39,410	4,216
Total	2,123,434	501,638	121,094	221,217	469,134	806,135	4,216

Table 4—Area of timberland, by county and stand-size class, Central Florida, 1995

County	All stands	Stand-size class			
		Sawtimber	Poletimber	Sapling-seedling	Nonstocked areas
<i>Acres</i>					
Brevard	93,094	46,308	27,349	14,595	4,842
Citrus	185,932	54,877	48,672	82,383	—
De Soto	47,759	31,287	4,077	4,958	7,437
Hardee	79,530	53,675	17,891	7,964	—
Hernando	155,853	68,452	45,909	38,839	2,653
Highlands	78,759	33,024	7,932	26,507	11,296
Hillsborough	96,466	69,318	18,591	5,936	2,621
Indian River	22,839	15,354	5,042	—	2,443
Lake	248,490	92,871	50,425	98,507	6,687
Manatee	40,003	18,488	4,108	13,299	4,108
Okeechobee	43,331	28,359	11,444	3,528	—
Orange	149,304	83,495	22,315	40,525	2,969
Osceola	181,508	91,470	34,265	53,067	2,706
Pasco	159,125	82,256	33,426	37,199	6,244
Pinellas	6,460	6,460	—	—	—
Polk	243,155	97,467	55,804	84,524	5,360
St. Lucie	20,589	15,348	—	5,241	—
Sarasota	48,801	29,513	10,280	425	8,583
Seminole	72,545	53,245	7,720	11,580	—
Sumter	149,891	80,959	34,168	32,808	1,956
Total	2,123,434	1,052,226	439,418	561,885	69,905

Table 5—Area of timberland, by county and site class, Central Florida, 1995

County	All classes	Site class (cubic feet per acre per year)				
		> 164	120-164	85-119	50-84	20-49
<i>Acres</i>						
Brevard	93,094	—	—	7,261	46,132	39,701
Citrus	185,932	—	—	9,936	63,540	112,456
De Soto	47,759	—	—	—	23,847	23,912
Hardee	79,530	—	—	10,735	36,511	32,284
Hernando	155,853	—	5,169	13,266	100,685	36,733
Highlands	78,759	—	—	—	45,212	33,547
Hillsborough	96,466	—	—	8,557	73,414	14,495
Indian River	22,839	—	—	—	8,023	14,816
Lake	248,490	2,431	9,357	35,964	136,825	63,913
Manatee	40,003	—	—	—	23,570	16,433
Okeechobee	43,331	—	—	2,836	34,723	5,772
Orange	149,304	—	—	2,969	94,144	52,191
Osceola	181,508	—	—	8,118	120,275	53,115
Pasco	159,125	—	—	9,366	103,327	46,432
Pinellas	6,460	—	—	—	5,167	1,293
Polk	243,155	—	—	656	168,251	74,248
St. Lucie	20,589	—	—	—	5,265	15,324
Sarasota	48,801	—	—	—	28,350	20,451
Seminole	72,545	—	—	19,301	45,524	7,720
Sumter	149,891	4,216	1,955	12,039	105,043	26,638
Total	2,123,434	6,647	16,481	141,004	1,267,828	691,474

Table 6—Area of timberland, by county and stocking class of growing-stock trees, Central Florida, 1995

County	All classes	Stocking class (percent) ^a				
		> 130	100-130	60-99	16.7-59	< 16.7
<i>Acres</i>						
Brevard	93,094	7,260	7,261	26,627	22,175	29,771
Citrus	185,932	4,468	9,935	50,406	91,317	29,806
De Soto	47,759	—	6,491	4,959	16,473	19,836
Hardee	79,530	—	15,041	21,471	28,626	14,392
Hernando	155,853	2,515	23,149	52,240	67,611	10,338
Highlands	78,759	2,500	11,756	19,660	22,161	22,682
Hillsborough	96,466	20,511	10,482	27,842	29,769	7,862
Indian River	22,839	691	2,444	2,444	9,775	7,485
Lake	248,490	8,512	49,715	78,618	86,485	25,160
Manatee	40,003	—	—	11,088	18,645	10,270
Okeechobee	43,331	2,836	14,871	11,344	8,508	5,772
Orange	149,304	17,337	22,793	37,638	45,774	25,762
Osceola	181,508	24,354	44,548	48,665	49,581	14,360
Pasco	159,125	15,477	21,742	51,800	43,443	26,663
Pinellas	6,460	—	1,293	3,874	1,293	—
Polk	243,155	22,237	40,102	59,935	82,031	38,850
St. Lucie	20,589	225	—	5,041	12,803	2,520
Sarasota	48,801	—	2,916	8,582	16,427	20,876
Seminole	72,545	6,185	4,010	19,300	30,882	12,168
Sumter	149,891	13,992	23,474	54,625	47,719	10,081
Total	2,123,434	149,100	312,023	596,159	731,498	334,654

^a See stocking standards under "stocking" in definitions.

Table 7—Volume of growing stock and sawtimber on timberland, by county and species group, Central Florida, 1995

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Brevard	85,753	47,428	5,138	14,832	18,355	252,920	108,130	15,037	57,312	72,441
Citrus	140,779	46,365	33,193	27,683	33,538	474,604	157,317	137,452	79,542	100,293
De Soto	38,975	3,559	5,964	19,609	9,843	142,442	18,593	23,561	65,308	34,980
Hardee	99,145	30,763	25,158	15,159	28,065	365,314	152,606	82,131	27,824	102,753
Hernando	191,244	68,293	6,924	52,465	63,562	611,191	225,121	31,261	150,450	204,359
Highlands	71,945	16,288	31,278	15,824	8,555	263,045	64,994	129,131	34,385	34,535
Hillsborough	196,645	25,407	96,564	32,771	41,903	594,463	113,266	249,075	94,904	137,218
Indian River	21,046	12,804	6,527	236	1,479	85,983	61,010	18,820	—	6,153
Lake	273,910	107,342	55,506	77,099	33,963	846,915	381,468	137,511	200,017	127,919
Manatee	30,081	3,166	—	14,058	12,857	117,819	14,417	—	57,011	46,391
Okeechobee	76,118	16,388	19,730	32,346	7,654	271,537	59,567	76,540	108,110	27,320
Orange	201,530	53,081	79,265	55,812	13,372	647,545	221,014	221,056	155,403	50,072
Osceola	305,989	50,490	161,140	63,094	31,265	975,157	246,341	486,602	168,344	73,870
Pasco	193,575	12,646	81,115	45,348	54,466	599,559	39,216	222,145	140,632	197,566
Pinellas	10,224	4,072	3,802	1,534	816	40,904	21,325	12,605	5,501	1,473
Polk	317,686	80,258	110,413	91,670	35,345	994,378	304,280	313,382	242,402	134,314
St. Lucie	11,397	8,363	2,130	337	567	53,933	43,441	8,950	1,542	—
Sarasota	25,588	16,884	—	3,765	4,939	89,649	55,087	—	11,750	22,812
Seminole	77,271	30,927	1,238	12,236	32,870	316,940	132,458	5,627	46,711	132,144
Sumter	266,020	54,782	85,970	50,234	75,034	769,191	159,947	258,269	119,142	231,833
Total	2,634,921	689,306	811,055	626,112	508,448	8,513,489	2,579,598	2,429,155	1,766,290	1,738,446

Table 8—Average net annual growth of growing stock and sawtimber on timberland, by county and species group, Central Florida, 1988—1994

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Brevard	2,986	2,027	163	210	586	12,953	8,755	657	1,226	2,315
Citrus	4,932	2,894	483	687	868	16,312	8,607	2,799	2,093	2,813
De Soto	1,185	27	104	696	358	5,476	563	593	3,524	796
Hardee	3,218	690	958	491	1,079	11,100	4,108	2,731	728	3,533
Hernando	4,803	3,363	157	445	838	15,512	10,768	561	1,505	2,678
Highlands	1,074	177	524	-17	390	6,461	1,315	3,104	201	1,841
Hillsborough	4,831	644	1,823	969	1,395	22,310	3,337	9,153	5,298	4,522
Indian River	270	189	41	11	29	1,286	952	198	—	136
Lake	6,361	2,830	871	2,248	412	20,817	7,924	3,605	7,821	1,467
Manatee	1,038	173	—	183	682	4,697	1,002	—	1,124	2,571
Okeechobee	1,193	437	152	319	285	5,639	1,445	754	2,034	1,406
Orange	5,688	2,332	1,801	937	618	25,875	13,021	6,401	3,057	3,396
Osceola	5,561	1,370	2,904	782	505	28,208	7,645	14,697	3,501	2,365
Pasco	2,814	1,114	797	200	703	13,124	3,143	4,894	1,793	3,294
Pinellas	430	237	139	34	20	2,098	1,311	595	192	—
Polk	10,114	3,263	3,323	2,426	1,102	41,112	10,926	13,773	9,801	6,612
St. Lucie	526	479	41	—	6	2,657	2,420	237	—	—
Sarasota	1,161	846	—	34	281	4,287	3,391	—	323	573
Seminole	2,179	1,259	24	413	483	12,192	6,423	144	2,146	3,479
Sumter	6,038	2,699	1,668	96	1,575	16,312	4,854	7,196	-541	4,803
Total	66,402	27,050	15,973	11,164	12,215	268,428	101,910	72,092	45,826	48,600

Table 9—Average annual removals of growing stock and sawtimber on timberland, by county and species group, Central Florida, 1988—1994

County	Growing stock					Sawtimber				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
	<i>Thousand cubic feet</i>					<i>Thousand board feet</i>				
Brevard	3,232	2,071	1,161	—	—	9,014	5,664	3,350	—	—
Citrus	4,424	4,128	181	—	115	10,747	10,187	560	—	—
De Soto	720	439	44	40	197	3,516	2,369	281	—	866
Hardee	143	143	—	—	—	—	—	—	—	—
Hernando	2,420	1,120	—	795	505	10,047	5,598	—	2,474	1,975
Highlands	1,080	289	—	506	285	4,233	1,204	—	1,438	1,591
Hillsborough	3,473	328	1,181	544	1,420	14,945	1,920	6,115	2,002	4,908
Indian River	180	94	—	—	86	1,047	607	—	—	440
Lake	5,759	1,770	2,841	920	228	18,909	8,785	8,258	998	868
Manatee	815	720	—	—	95	3,720	3,488	—	—	232
Okeechobee	458	458	—	—	—	1,157	1,157	—	—	—
Orange	6,123	2,425	819	1,526	1,353	15,378	4,621	1,792	3,530	5,435
Osceola	3,051	645	2,342	64	—	8,062	2,498	5,343	221	—
Pasco	5,342	3,320	1,611	113	298	16,622	12,121	3,375	—	1,126
Pinellas	752	752	—	—	—	2,871	2,871	—	—	—
Polk	6,451	104	5,462	405	480	14,970	—	11,854	273	2,843
St. Lucie	1,613	1,613	—	—	—	5,219	5,219	—	—	—
Sarasota	988	775	—	—	213	2,894	2,894	—	—	—
Seminole	2,332	426	—	791	1,115	10,263	2,066	—	3,547	4,650
Sumter	1,145	730	—	—	415	3,632	2,017	—	—	1,615
Total	50,501	22,350	15,642	5,704	6,805	157,246	75,286	40,928	14,483	26,549

Table 10—Area of timberland, by forest type and ownership class, Central Florida, 1995

Forest type	Ownership class					
	All ownerships	National forest	Other public	Forest industry	Forest industry- leased	Other private
<i>Acres</i>						
Softwood types						
Longleaf pine	109,533	10,678	27,840	—	—	71,015
Slash pine	392,105	13,347	100,710	—	—	278,048
Loblolly pine	5,125	—	—	—	—	5,125
Shortleaf pine	—	—	—	—	—	—
Virginia pine	—	—	—	—	—	—
Sand pine	75,162	18,684	4,388	—	—	52,090
Eastern redcedar	—	—	—	—	—	—
Pond pine	40,807	—	—	—	—	40,807
Spruce pine	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—
Total	622,732	42,709	132,938	—	—	447,085
Hardwood types						
Oak-pine	221,217	10,679	49,475	—	—	161,063
Oak-hickory	335,934	2,670	49,710	—	—	283,554
Chestnut oak	—	—	—	—	—	—
Southern scrub oak	133,200	10,680	15,471	—	—	107,049
Oak-gum-cypress	806,135	2,669	208,786	—	—	594,680
Elm-ash-cottonwood	4,216	—	—	—	—	4,216
Total	1,500,702	26,698	323,442	—	—	1,150,562
All types	2,123,434	69,407	456,380	—	—	1,597,647

Table 11—Area of timberland, by ownership and stocking classes of growing-stock trees, Central Florida, 1995

Ownership class	All classes	Stocking class (percent) ^a				
		> 130	100-130	60-99	16.7-59	< 16.7
<i>Acres</i>						
National forest	69,407	—	16,016	21,355	29,366	2,670
Other public	456,380	40,228	73,395	135,308	145,913	61,536
Forest industry	—	—	—	—	—	—
Forest industry-leased	—	—	—	—	—	—
Other private	1,597,647	108,872	222,612	439,496	556,219	270,448
All ownerships	2,123,434	149,100	312,023	596,159	731,498	334,654

^a See stocking standards under "stocking" in definitions.

Table 12—Area of timberland, by forest type and stand-size class, Central Florida, 1995

Forest type	All stands	Stand-size class			Nonstocked areas
		Sawtimber	Poletimber	Sapling-seedling	
<i>Acres</i>					
Softwood types					
Longleaf pine	109,533	45,345	8,986	42,844	12,358
Slash pine	392,105	158,469	102,571	98,869	32,196
Loblolly pine	5,125	2,654	—	2,471	—
Shortleaf pine	—	—	—	—	—
Virginia pine	—	—	—	—	—
Sand pine	75,162	16,034	30,330	28,798	—
Eastern redcedar	—	—	—	—	—
Pond pine	40,807	19,865	7,821	13,121	—
Spruce pine	—	—	—	—	—
Pitch pine	—	—	—	—	—
Table Mountain pine	—	—	—	—	—
Total	622,732	242,367	149,708	186,103	44,554
Hardwood types					
Oak-pine	221,217	86,396	29,129	102,986	2,706
Oak-hickory	335,934	187,130	73,402	72,749	2,653
Chestnut oak	—	—	—	—	—
Southern scrub oak	133,200	5,284	15,212	110,650	2,054
Oak-gum-cypress	806,135	531,049	167,751	89,397	17,938
Elm-ash-cottonwood	4,216	—	4,216	—	—
Total	1,500,702	809,859	289,710	375,782	25,351
All types	2,123,434	1,052,226	439,418	561,885	69,905

Table 13—Area of timberland, by stand-age and broad management classes, all ownerships, Central Florida, 1995

Stand-age class (years)	All classes	Broad management class				Lowland hardwood
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	
<i>Acres</i>						
0-10	165,651	75,899	39,234	15,968	10,498	24,052
11-20	74,894	25,966	18,760	13,864	10,305	5,999
21-30	109,100	45,334	33,255	6,543	5,073	18,895
31-40	110,201	21,824	46,617	7,389	7,745	26,626
41-50	160,701	5,217	54,553	18,505	10,580	71,846
51-60	122,371	—	18,285	9,693	14,553	79,840
61-70	148,289	—	16,951	8,380	9,163	113,795
71-80	119,545	—	4,874	5,375	2,471	106,825
81 +	163,679	—	7,339	11,768	24,255	120,317
No manageable stand	949,003	13,058	195,566	123,732	374,491	242,156
All classes	2,123,434	187,298	435,434	221,217	469,134	810,351

Table 14—Area of timberland, by stand-age and broad management classes, public ownerships, Central Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
0-10	53,134	17,047	19,838	7,977	656	7,616
11-20	22,385	11,319	1,978	5,966	3,122	—
21-30	47,229	29,315	6,994	2,516	—	8,404
31-40	22,292	3,780	15,111	1,955	—	1,446
41-50	36,851	5,217	11,483	2,516	4,249	13,386
51-60	29,935	—	—	1,955	—	27,980
61-70	46,476	—	4,225	—	—	42,251
71-80	34,342	—	—	2,669	—	31,673
81 +	36,572	—	4,719	2,670	2,652	26,531
No manageable stand	196,571	2,380	42,241	31,930	67,852	52,168
All classes	525,787	69,058	106,589	60,154	78,531	211,455

Table 15—Area of timberland, by stand-age and broad management classes, forest industry,^a Central Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
0-10	—	—	—	—	—	—
11-20	—	—	—	—	—	—
21-30	—	—	—	—	—	—
31-40	—	—	—	—	—	—
41-50	[No Forest Industry Timberland was Sampled in this Survey Unit]					
51-60	—	—	—	—	—	—
61-70	—	—	—	—	—	—
71-80	—	—	—	—	—	—
81 +	—	—	—	—	—	—
No manageable stand	—	—	—	—	—	—
All classes	—	—	—	—	—	—

^a Includes 0 acres of other private land under long-term lease.

Table 16—Area of timberland, by stand-age and broad management classes, other private ownerships,^a Central Florida, 1995

Stand-age class (years)	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
0-10	112,517	58,852	19,396	7,991	9,842	16,436
11-20	52,509	14,647	16,782	7,898	7,183	5,999
21-30	61,871	16,019	26,261	4,027	5,073	10,491
31-40	87,909	18,044	31,506	5,434	7,745	25,180
41-50	123,850	—	43,070	15,989	6,331	58,460
51-60	92,436	—	18,285	7,738	14,553	51,860
61-70	101,813	—	12,726	8,380	9,163	71,544
71-80	85,203	—	4,874	2,706	2,471	75,152
81 +	127,107	—	2,620	9,098	21,603	93,786
No manageable stand	752,432	10,678	153,325	91,802	306,639	189,988
All classes	1,597,647	118,240	328,845	161,063	390,603	598,896

^a Excludes 0 acres of other private land under long-term lease to forest industry.

Table 17—Area of timberland, by broad management and stand-volume classes, Central Florida, 1995

Broad management class	All classes	Stand-volume class (cubic feet of growing stock per acre)				
		0-499	500-999	1000-1499	1500-1999	2000 +
<i>Acres</i>						
Pine plantation	187,298	88,107	44,904	29,433	9,789	15,065
Natural pine	435,434	176,927	91,792	80,795	37,533	48,387
Oak-pine	221,217	119,442	32,469	25,496	13,691	30,119
Upland hardwood	469,134	295,526	82,788	32,230	29,674	28,916
Lowland hardwood	810,351	173,102	69,086	122,059	85,186	360,918
All classes	2,123,434	853,104	321,039	290,013	175,873	483,405

Table 18—Volume of growing stock on timberland, by broad management class, species group, and stand-age class, Central Florida, 1995

Broad management class and species group	All classes	No manageable stand	Stand-age class (years)								Total
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	
<i>Thousand cubic feet</i>											
Pine plantation											
Softwood	127,824	5,947	5,485	18,709	47,078	45,415	5,190	—	—	—	—
Hardwood	3,972	517	—	—	2,539	916	—	—	—	—	—
Total	131,796	6,464	5,485	18,709	49,617	46,331	5,190	—	—	—	—
Natural pine											
Softwood	386,308	88,848	7,580	8,565	31,643	73,394	83,029	40,181	23,960	10,940	18,168
Hardwood	23,237	1,628	572	2,039	1,242	2,655	8,123	948	1,573	1,317	3,140
Total	409,545	90,476	8,152	10,604	32,885	76,049	91,152	41,129	25,533	12,257	21,308
Oak-pine											
Softwood	126,136	42,727	2,759	945	3,232	5,107	21,306	13,027	9,744	9,379	17,910
Hardwood	58,121	6,338	507	—	441	2,318	10,002	14,086	11,926	3,193	9,310
Total	184,257	49,065	3,266	945	3,673	7,425	31,308	27,113	21,670	12,572	27,220
Upland hardwood											
Softwood	37,832	24,885	1,415	1,204	1,317	2,478	1,550	3,810	424	—	749
Hardwood	212,402	79,541	2,015	5,098	1,251	10,433	11,209	24,001	22,263	7,535	49,056
Total	250,234	104,426	3,430	6,302	2,568	12,911	12,759	27,811	22,687	7,535	49,805
Lowland hardwood											
Softwood	822,261	17,918	2,037	785	7,799	27,183	54,555	102,937	162,147	208,516	238,384
Hardwood	836,828	103,615	7,055	3,642	7,947	17,859	83,334	99,761	164,513	172,314	176,788
Total	1,659,089	121,533	9,092	4,427	15,746	45,042	137,889	202,698	326,660	380,830	415,172
All types											
Softwood	1,500,361	180,325	19,276	30,208	91,069	153,577	165,630	159,955	196,275	228,835	275,211
Hardwood	1,134,560	191,639	10,149	10,779	13,420	34,181	112,668	138,796	200,275	184,359	238,294
Total	2,634,921	371,964	29,425	40,987	104,489	187,758	278,298	298,751	396,550	413,194	513,505

Table 19—Average net annual growth of growing stock on timberland, by broad management class, species group, and stand-age class, Central Florida, 1988-1994

Broad management class ^a and species group	All classes	No manageable stand	Stand-age class (years) ^a								Total
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	
<i>Thousand cubic feet</i>											
Pine plantation											
Softwood	9,930	410	2,234	4,320	2,748	218	—	—	—	—	—
Hardwood	435	22	219	194	—	—	—	—	—	—	—
Total	10,365	432	2,234	4,539	2,942	218	—	—	—	—	—
Natural pine											
Softwood	11,678	3,722	350	1,857	3,097	1,458	723	110	196	207	-42
Hardwood	839	229	25	—	15	120	170	156	6	118	—
Total	12,517	3,951	375	1,857	3,112	1,578	893	266	202	325	-42
Oak-pine											
Softwood	3,654	1,245	6	327	23	1,032	314	558	-89	204	34
Hardwood	2,067	395	—	—	176	643	221	410	-16	92	146
Total	5,721	1,640	6	327	199	1,675	535	968	-105	296	180
Upland hardwood											
Softwood	1,423	1,268	51	—	23	10	28	—	—	43	—
Hardwood	5,262	3,084	223	102	169	31	793	135	83	487	155
Total	6,685	4,352	274	102	192	41	821	135	83	530	155
Lowland hardwood											
Softwood	16,338	892	67	85	269	1,220	1,844	3,819	3,695	2,324	2,123
Hardwood	14,776	3,847	231	158	530	968	2,211	2,127	2,267	903	1,534
Total	31,114	4,739	298	243	799	2,188	4,055	5,946	5,962	3,227	3,657
All types											
Softwood	43,023	7,537	2,708	6,589	6,160	3,938	2,909	4,487	3,802	2,778	2,115
Hardwood	23,379	7,577	479	479	1,084	1,762	3,395	2,828	2,340	1,600	1,835
Total	66,402	15,114	3,187	7,068	7,244	5,700	6,304	7,315	6,142	4,378	3,950

^a Classifications at the beginning of the remeasurement period.

Table 20—Average annual removals of growing stock on timberland, by broad management class, species group, and stand-age class, Central Florida, 1988—1994

Broad management class ^a and species group	All classes	No manageable stand	Stand-age class (years) ^a								Total
			0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	
<i>Thousand cubic feet</i>											
Pine plantation											
Softwood	6,644	99	39	1,629	4,421	456	—	—	—	—	—
Hardwood	59	—	—	59	—	—	—	—	—	—	—
Total	6,703	99	39	1,629	4,480	456	—	—	—	—	—
Natural pine											
Softwood	12,211	3,246	—	281	2,515	3,059	864	1,820	426	—	—
Hardwood	203	203	—	—	—	—	—	—	—	—	—
Total	12,414	3,449	—	281	2,515	3,059	864	1,820	426	—	—
Oak-pine											
Softwood	2,730	1,262	—	213	—	433	173	649	—	—	—
Hardwood	221	—	—	—	—	221	—	—	—	—	—
Total	2,951	1,262	—	213	—	654	173	649	—	—	—
Upland hardwood											
Softwood	728	728	—	—	—	—	—	—	—	—	—
Hardwood	3,539	1,992	—	173	—	—	1,300	—	74	—	—
Total	4,267	2,720	—	173	—	—	1,300	—	74	—	—
Lowland hardwood											
Softwood	15,679	540	—	—	—	689	724	5,768	1,774	1,297	4,887
Hardwood	8,487	707	71	—	—	—	371	4,064	1,867	173	1,234
Total	24,166	1,247	71	—	—	689	1,095	9,832	3,641	1,470	6,121
All types											
Softwood	37,992	5,875	39	2,123	6,936	4,637	1,761	8,237	2,200	1,297	4,887
Hardwood	12,509	2,902	71	173	59	221	1,671	4,064	1,867	247	1,234
Total	50,501	8,777	110	2,296	6,995	4,858	3,432	12,301	4,067	1,544	6,121

^a Classifications at the beginning of the remeasurement period.

Table 21—Merchantable volume of live trees and growing stock on timberland, by forest-type and species groups, Central Florida, 1995

Forest-type group	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>										
Longleaf-slash pine	457,400	412,237	4,782	14,865	25,516	435,725	411,011	4,428	12,842	7,444
Loblolly-shortleaf pine	108,816	100,045	—	5,072	3,699	105,616	98,693	—	4,019	2,904
Oak-pine	226,013	118,814	8,386	34,099	64,714	184,257	118,101	8,035	31,926	26,195
Oak-hickory	418,328	37,374	712	46,807	333,435	250,234	37,120	712	41,527	170,875
Oak-gum-cypress	1,863,157	24,381	806,937	627,302	404,537	1,656,885	24,381	797,880	533,594	301,030
Elm-ash-cottonwood	3,001	—	—	3,001	—	2,204	—	—	2,204	—
All types	3,076,715	692,851	820,817	731,146	831,901	2,634,921	689,306	811,055	626,112	508,448

Table 22—Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and ownership class, Central Florida, 1988 to 1995

Treatment or disturbance	Ownership class				
	All ownerships	Public	Forest industry	Forest industry-leased	Other private
<i>Acres^a</i>					
Final harvest	11,769	3,695	—	—	8,074
Partial harvest ^b	3,029	—	—	—	3,029
Commercial thinning	2,525	507	—	—	2,018
Other stand improvement	—	—	—	—	—
Site preparation	2,570	1,582	—	—	988
Artificial regeneration ^c	8,952	1,476	—	—	7,476
Natural regeneration ^c	7,727	2,101	—	—	5,626
Other treatment	12,389	1,826	—	—	10,563
Natural disturbance	21,236	4,720	—	—	16,516

^a Since some acres experience more than one treatment or disturbance, there are no column totals.

^b Includes high-grading and some selective cutting.

^c Includes establishment of trees for timber production on forest and nonforest land.

Table 23—Area of timberland treated or disturbed annually and retained in timberland, by treatment or disturbance and broad management class, Central Florida, 1988 to 1995

Treatment or disturbance	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres^b</i>						
Final harvest	11,769	2,154	5,022	677	345	3,571
Partial harvest ^c	3,029	—	—	1,563	—	1,466
Commercial thinning	2,525	2,157	368	—	—	—
Other stand improvement	—	—	—	—	—	—
Site preparation	2,570	561	661	342	664	342
Other treatment	12,389	—	4,388	2,082	2,225	3,694
Natural disturbance	21,236	2,325	6,881	1,455	1,009	9,566

^a Classification before treatment or disturbance.

^b Since some acres experience more than one treatment or disturbance, there are no column totals.

^c Includes high-grading and some selective cutting.

Table 24—Area of timberland regenerated annually, by type of regeneration and broad management class, Central Florida, 1988 to 1995

Type of regeneration	All classes	Broad management class ^a				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
Artificial regeneration following harvest	327	327	—	—	—	—
Natural regeneration following harvest	1,484	—	749	365	—	370
Other artificial regeneration on forest land	1,810	1,579	—	231	—	—
Other natural regeneration on forest land	3,818	—	1,506	544	1,011	757
Artificial regeneration on nonforest land	6,815	6,445	—	370	—	—
Natural reversion of nonforest land	2,425	—	1,108	—	370	947
Total	16,679	8,351	3,363	1,510	1,381	2,074

^a Classification after regeneration.

Table 25—Area of timberland, by treatment opportunity and broad management classes, Central Florida, 1995

Treatment opportunity class	All classes	Broad management class				
		Pine plantation	Natural pine	Oak-pine	Upland hardwood	Lowland hardwood
<i>Acres</i>						
Salvage	15,916	—	4,960	—	2,472	8,484
Harvest	111,890	—	7,339	11,768	19,827	72,956
Commercial thinning	20,955	11,041	—	—	—	9,914
Other stand improvement	64,861	2,669	11,577	11,378	16,268	22,969
Stand conversion	2,430	—	—	—	—	2,430
Regeneration	889,377	13,058	195,566	118,489	374,491	187,773
Stand in relatively good condition	798,167	160,530	215,992	74,339	56,076	291,230
Adverse sites ^a	219,838	—	—	5,243	—	214,595
All classes	2,123,434	187,298	435,434	221,217	469,134	810,351

^a Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 26—Area of timberland, by treatment opportunity and ownership classes, Central Florida, 1995

Treatment opportunity class	All ownerships	Ownership class			
		Public	Forest industry	Forest industry-leased	Other private
<i>Acres</i>					
Salvage	15,916	5,638	—	—	10,278
Harvest	111,890	36,483	—	—	75,407
Commercial thinning	20,955	10,882	—	—	10,073
Other stand improvement	64,861	22,005	—	—	42,856
Stand conversion	2,430	—	—	—	2,430
Regeneration	889,377	185,514	—	—	703,863
Stand in relatively good condition	798,167	216,682	—	—	581,485
Adverse sites ^a	219,838	48,583	—	—	171,255
All classes	2,123,434	525,787	—	—	1,597,647

^a Areas where management opportunities are severely limited because of steep slopes or poor drainage.

Table 27—Merchantable volume of live trees and growing stock on timberland, by ownership class and species group, Central Florida, 1995

Ownership class	Live trees					Growing stock				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>										
National forest	67,765	41,394	—	12,066	14,305	60,779	41,394	—	11,257	8,128
Other public	748,444	145,503	229,140	173,919	199,882	669,691	145,207	226,276	158,353	139,855
Forest industry	—	—	—	—	—	—	—	—	—	—
Forest industry-leased	—	—	—	—	—	—	—	—	—	—
Other private	2,260,506	505,954	591,677	545,161	617,714	1,904,451	502,705	584,779	456,502	360,465
All ownerships	3,076,715	692,851	820,817	731,146	831,901	2,634,921	689,306	811,055	626,112	508,448

Table 28—Volume of sawtimber on timberland, by ownership class and species group, Central Florida, 1995

Ownership class	Small sawtimber ^a					Large sawtimber ^b				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand board feet</i>										
National forest	78,538	64,833	—	7,052	6,653	93,937	48,668	—	24,737	20,532
Other public	1,102,578	344,134	442,808	194,355	121,281	943,209	134,567	262,728	237,199	308,715
Forest industry	—	—	—	—	—	—	—	—	—	—
Forest industry-leased	—	—	—	—	—	—	—	—	—	—
Other private	3,168,048	1,152,140	1,195,258	518,758	301,892	3,127,179	835,256	528,361	784,189	979,373
All ownerships	4,349,164	1,561,107	1,638,066	720,165	429,826	4,164,325	1,018,491	791,089	1,046,125	1,308,620

^a Volume of sawtimber trees less than 15.0 inches at d.b.h.

^b Volume of sawtimber trees 15.0 inches and larger at d.b.h.

Table 29—Average net annual growth and removals of growing stock on timberland, by ownership class and species group, Central Florida, 1988-1994

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>										
National forest	1,927	1,467	—	338	122	382	382	—	—	—
Other public	15,691	7,382	3,784	1,564	2,961	12,571	6,121	1,258	2,529	2,663
Forest industry	—	—	—	—	—	—	—	—	—	—
Forest industry-leased	—	—	—	—	—	—	—	—	—	—
Other private	48,784	18,201	12,189	9,262	9,132	37,548	15,847	14,384	3,175	4,142
All ownerships	66,402	27,050	15,973	11,164	12,215	50,501	22,350	15,642	5,704	6,805

Table 30—Average net annual growth and removals of sawtimber on timberland, by ownership class and species group, Central Florida, 1988–1994

Ownership class	Net annual growth					Annual timber removals				
	All species	Pine	Other softwood	Soft hardwood	Hard hardwood	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand board feet</i>										
National forest	3,503	1,292	—	1,207	1,004	2,108	2,108	—	—	—
Other public	57,948	23,170	18,024	6,886	9,868	42,750	22,735	2,593	6,329	11,093
Forest industry	—	—	—	—	—	—	—	—	—	—
Forest industry-leased	—	—	—	—	—	—	—	—	—	—
Other private	206,977	77,448	54,068	37,733	37,728	112,388	50,443	38,335	8,154	15,456
All ownerships	268,428	101,910	72,092	45,826	48,600	157,246	75,286	40,928	14,483	26,549

Table 31—Volume of timber on timberland, by class of timber and species group, Central Florida, 1995

Class of timber	All species	Pine	Other softwood	Soft hardwood	Hard hardwood
<i>Thousand cubic feet</i>					
Sawtimber trees					
Saw-log portion	1,641,184	469,008	510,764	343,722	317,690
Upper-stem portion ^a	236,749	41,444	78,031	69,768	47,506
Total	1,877,933	510,452	588,795	413,490	365,196
Poletimber trees					
All growing-stock trees	756,988	178,854	222,260	212,622	143,252
	2,634,921	689,306	811,055	626,112	508,448
Rough trees					
Sawtimber size	248,375	2,916	5,167	47,594	192,698
Poletimber size	161,717	340	2,551	47,970	110,856
Total	410,092	3,256	7,718	95,564	303,554
Rotten trees					
Sawtimber size	28,657	289	1,879	7,642	18,847
Poletimber size	3,045	—	165	1,828	1,052
Total	31,702	289	2,044	9,470	19,899
Salvable dead trees					
Sawtimber size	1,279	1,087	192	—	—
Poletimber size	533	336	197	—	—
Total	1,812	1,423	389	—	—
Total, all timber	3,078,527	694,274	821,206	731,146	831,901

^a Includes cull sections in the saw-log portion.

Table 33—Number of growing-stock trees on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)														21.0-28.9 and larger
	All classes	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger		
<i>Thousand trees</i>															
Softwood															
Longleaf pine	25,049	11,466	5,156	1,995	1,565	1,632	1,476	987	474	153	117	28			
Slash pine	86,000	27,553	16,709	14,845	11,893	6,217	3,986	2,600	1,113	673	294	117			
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—	—			
Loblolly pine	2,583	795	805	342	65	176	104	73	101	73	27	22			
Pond pine	5,801	326	1,738	861	952	874	405	303	135	120	47	40			
Virginia pine	—	—	—	—	—	—	—	—	—	—	—	—			
Pitch pine	—	—	—	—	—	—	—	—	—	—	—	—			
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—	—			
Spruce pine	—	—	—	—	—	—	—	—	—	—	—	—			
Sand pine	33,660	13,506	8,937	6,038	3,010	890	593	351	172	100	50	13			
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—	—			
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—	—			
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—	—			
Baldcypress	19,800	3,800	2,239	3,174	2,744	2,042	2,372	1,527	997	427	228	239	11		
Pondcypress	150,188	53,815	36,926	23,364	15,257	10,211	6,557	2,658	971	307	60	59	3		
Cedars	1,303	476	—	90	108	274	91	141	53	22	28	20			
Total softwoods	324,384	111,737	72,510	50,709	35,594	22,316	15,584	8,640	4,016	1,875	851	538	14		
Hardwood															
Select white oaks	7	—	—	—	—	—	—	—	—	—	—	—	7		
Select red oaks	—	—	—	—	—	—	—	—	—	—	—	—	—		
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—	—	—		
Other white oaks	8,854	1,714	2,416	1,360	887	475	357	327	292	216	175	432	203		
Other red oaks	41,191	13,990	10,042	5,701	3,873	2,810	1,847	1,120	696	398	265	384	65		
Hickory	1,806	601	143	143	114	299	81	127	57	122	62	53	4		
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—	—		
Hard maple	254	—	—	131	—	—	—	46	20	19	—	38	—		
Soft maple	27,664	9,265	6,608	2,948	2,386	2,180	1,446	1,254	631	425	245	254	22		
Beech	—	—	—	—	—	—	—	—	—	—	—	—	—		
Sweetgum	8,322	2,063	1,374	641	1,237	1,488	484	443	295	109	67	109	12		
Tupelo and blackgum	26,365	6,208	6,193	5,239	3,055	2,177	1,710	879	450	240	65	128	21		
Ash	21,212	6,007	3,488	4,561	2,542	2,225	1,138	470	349	268	81	80	3		
Cottonwood	—	—	—	—	—	—	—	—	—	—	—	—	—		
Basswood	95	—	—	—	—	—	—	62	14	11	—	—	—		
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—	—		
Bay and magnolia	49,781	25,033	9,519	5,346	3,656	2,550	1,849	878	546	149	111	144	—		
Black cherry	1,898	913	514	352	107	—	—	—	—	12	—	—	—		
Black walnut	—	—	—	—	—	—	—	—	—	—	—	—	—		
Sycamore	—	—	—	—	—	—	—	—	—	—	—	—	—		
Black locust	—	—	—	—	—	—	—	—	—	—	—	—	—		
Elm	—	—	—	—	—	—	—	—	—	—	—	—	—		
Other Eastern hardwoods	10,393	4,524	3,154	1,187	502	426	231	174	66	62	40	23	4		
Total hardwoods	2,123	864	462	180	247	115	153	36	50	—	9	7	—		
Total hardwoods	199,965	71,182	43,913	27,789	18,606	14,745	9,296	5,816	3,466	2,031	1,120	1,667	334		
All species	524,349	182,919	116,423	78,498	54,200	37,061	24,880	14,456	7,482	3,906	1,971	2,205	348		

Table 35—Volume of growing stock on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)											19.0- 20.9	21.0- 28.9	29.0 and larger			
	All classes	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 28.9	29.0 and larger						
<i>Thousand cubic feet</i>																	
Softwood																	
Longleaf pine	113,963	6,077	9,852	18,893	25,418	23,968	15,214	6,453	6,146	1,942							
Slash pine	425,059	37,861	76,343	72,038	73,098	68,948	41,008	30,142	17,279	8,342							
Shortleaf pine	—	—	—	—	—	—	—	—	—	—							
Loblolly pine	19,369	698	189	2,463	1,913	2,191	4,263	3,959	1,817	1,876							
Pond pine	48,994	2,119	5,786	9,276	7,782	6,642	4,790	5,590	3,187	3,822							
Virginia pine	—	—	—	—	—	—	—	—	—	—							
Pitch pine	—	—	—	—	—	—	—	—	—	—							
Table Mountain pine	—	—	—	—	—	—	—	—	—	—							
Spruce pine	—	—	—	—	—	—	—	—	—	—							
Sand pine	81,921	18,557	21,372	9,071	10,066	9,525	5,343	4,673	2,418	896							
Eastern white pine	—	—	—	—	—	—	—	—	—	—							
Eastern hemlock	—	—	—	—	—	—	—	—	—	—							
Spruce and fir	—	—	—	—	—	—	—	—	—	—							
Baldcypress	230,761	9,404	20,518	25,425	43,833	40,425	36,338	20,359	13,105	19,611							1,743
Pondcypress	565,874	80,097	111,312	127,432	120,878	69,878	33,837	14,208	3,173	4,578							481
Cedars	14,420	297	632	2,961	1,489	3,503	1,598	757	1,787	1,396							—
Total softwoods	1,500,361	155,110	246,004	267,559	284,477	225,080	142,391	86,141	48,912	42,463							2,224
Hardwood																	
Select white oaks	605	—	—	—	—	—	—	—	—	—							605
Select red oaks	—	—	—	—	—	—	—	—	—	—							—
Chestnut oak	—	—	—	—	—	—	—	—	—	—							—
Other white oaks	115,519	3,663	4,702	3,657	4,855	6,669	8,400	8,645	8,164	31,605							35,159
Other red oaks	223,111	16,999	22,985	28,884	31,264	26,716	22,271	16,828	13,869	32,203							11,092
Hickory	26,420	186	759	3,000	1,257	3,078	2,315	6,171	4,168	4,937							549
Yellow birch	—	—	—	—	—	—	—	—	—	—							—
Hard maple	6,372	419	—	—	—	911	608	976	—	3,458							—
Soft maple	188,295	8,636	15,700	25,131	25,585	31,738	22,272	19,808	13,935	21,749							3,741
Beech	—	—	—	—	—	—	—	—	—	—							—
Sweetgum	83,945	1,410	7,586	17,973	9,459	13,642	11,063	5,794	4,604	10,361							2,053
Tupelo and blackgum	159,898	16,775	19,569	25,012	31,105	23,073	15,913	10,765	4,070	9,908							3,708
Ash	133,130	12,547	17,401	26,574	22,904	13,898	12,880	13,819	5,108	7,508							491
Cottonwood	—	—	—	—	—	—	—	—	—	—							—
Basswood	2,833	—	—	—	—	1,449	393	508	—	483							—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—							—
Bay and magnolia	155,072	14,143	21,015	26,815	31,096	19,874	18,508	7,022	6,247	10,352							—
Black cherry	2,069	1,070	563	—	—	—	—	436	—	—							—
Black walnut	—	—	—	—	—	—	—	—	—	—							—
Sycamore	—	—	—	—	—	—	—	—	—	—							—
Black locust	—	—	—	—	—	—	—	—	—	—							—
Elm	27,842	2,202	2,527	4,467	4,097	4,406	2,657	2,759	2,212	1,778							737
Other Eastern hardwoods	9,449	506	1,545	1,453	2,668	801	1,494	—	540	442							—
Total hardwoods	1,134,560	78,556	114,352	162,966	164,290	146,255	118,774	93,531	62,917	135,389							57,530
All species	2,634,921	233,666	360,356	430,525	448,767	371,335	261,165	179,672	111,829	177,852							59,754

Table 36—Volume of sawtimber on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)										29.0 and larger
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9	29.0 and larger		
Thousand board feet											
Softwood											
Longleaf pine	508,204	77,966	123,077	128,380	87,664	39,114	39,110	12,893			
Slash pine	1,549,153	266,735	336,770	362,358	234,059	183,182	110,054	55,995			
Shortleaf pine	—	—	—	—	—	—	—	—			
Loblolly pine	100,663	8,910	8,451	11,343	24,361	23,747	11,528	12,323			
Pond pine	209,554	35,094	36,106	33,913	26,583	33,037	19,732	25,089			
Virginia pine	—	—	—	—	—	—	—	—			
Pitch pine	—	—	—	—	—	—	—	—			
Table Mountain pine	—	—	—	—	—	—	—	—			
Spruce pine	—	—	—	—	—	—	—	—			
Sand pine	212,024	33,867	47,274	50,863	30,585	28,231	15,304	5,900			
Eastern white pine	—	—	—	—	—	—	—	—			
Eastern hemlock	—	—	—	—	—	—	—	—			
Spruce and fir	—	—	—	—	—	—	—	—			
Baldcypress	892,370	78,098	165,074	175,852	173,846	104,661	70,517	113,300	11,022		
Pondcypress	1,465,308	399,016	471,347	310,413	164,123	73,793	17,095	26,438	3,083		
Cedars	71,477	12,395	7,112	18,759	9,073	4,416	10,881	8,841			
Total softwoods	5,008,753	912,081	1,195,211	1,091,881	750,294	490,181	294,221	260,779	14,105		
Hardwood											
Select white oaks	3,594	—	—	—	—	—	—	—	3,594		
Select red oaks	—	—	—	—	—	—	—	—	—		
Chestnut oak	—	—	—	—	—	—	—	—	—		
Other white oaks	515,306	—	16,518	26,080	35,808	39,402	38,883	161,742	196,873		
Other red oaks	756,801	—	118,679	115,888	106,470	85,820	74,491	185,657	69,796		
Hickory	109,018	—	4,200	12,517	10,413	29,881	21,318	27,346	3,343		
Yellow birch	—	—	—	—	—	—	—	—	—		
Hard maple	28,495	—	—	3,487	2,678	4,399	—	17,931	—		
Soft maple	587,590	—	83,235	121,016	94,327	89,940	66,467	111,681	20,924		
Beech	—	—	—	—	—	—	—	—	—		
Sweetgum	278,826	—	34,793	59,039	53,343	30,434	25,767	61,841	13,609		
Tupelo and blackgum	418,427	—	104,791	91,881	71,427	52,061	21,024	54,580	22,663		
Ash	318,370	—	75,688	53,618	55,547	64,863	25,621	40,030	3,003		
Cottonwood	—	—	—	—	—	—	—	—	—		
Basswood	11,978	—	—	5,535	1,679	2,328	—	2,436	—		
Yellow-poplar	—	—	—	—	—	—	—	—	—		
Bay and magnolia	371,229	—	103,408	75,747	78,361	32,126	29,662	51,925	—		
Black cherry	2,128	—	—	—	—	2,128	—	—	—		
Black walnut	—	—	—	—	—	—	—	—	—		
Sycamore	—	—	—	—	—	—	—	—	—		
Black locust	—	—	—	—	—	—	—	—	—		
Elm	78,778	—	13,937	17,453	11,373	12,447	10,602	8,914	4,052		
Other Eastern hardwoods	24,196	—	9,197	3,284	6,466	—	2,796	2,453	—		
Total hardwoods	3,504,736	—	564,446	585,545	527,892	445,829	316,631	730,130	334,263		
All species	8,513,489	912,081	1,759,657	1,677,426	1,278,186	936,010	610,852	990,909	348,368		

Table 37—Volume of sawtimber on timberland, by species, size class, and tree grade, Central Florida, 1995

Species	All size classes													
	All grades				Tree grade				All grades		Tree grade			
	1	2	3	4	1	2	3	4	1	2	3	4		
	<i>Thousand board feet</i>													
Softwood														
Yellow pines ^a	2,579,598	718,656	1,091,466	—	1,018,491	437,074	275,240	306,177	—	—	—	—		
Eastern white pine ^b	—	—	—	—	—	—	—	—	—	—	—	—		
Spruce and fir ^b	—	—	—	—	—	—	—	—	—	—	—	—		
Cypress ^c	2,357,678	271,155	1,335,570	5,251	757,878	271,155	370,709	116,014	—	—	—	—		
Other Eastern softwoods ^b	71,477	13,995	48,104	—	33,211	9,378	5,556	18,277	—	—	—	—		
Total	5,008,753	999,189	2,475,140	5,251	1,809,580	717,607	651,505	440,468	—	—	—	—		
Hardwood^c														
Select white and red oaks	3,594	—	—	—	3,594	—	3,594	—	—	—	—	—		
Other white and red oaks	1,272,107	114,309	654,876	96,587	994,942	114,309	392,258	433,407	—	—	—	—		
Hickory	109,018	27,653	22,475	—	92,301	27,653	56,968	7,680	—	—	—	—		
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—		
Hard maple	28,495	—	12,492	8,153	25,008	—	7,850	12,492	—	—	—	—		
Sweetgum	278,826	30,769	122,192	6,608	184,994	30,769	100,703	48,222	—	—	—	—		
Ash, walnut, and black cherry	320,498	30,935	176,158	5,780	191,192	30,935	89,922	66,149	—	—	—	—		
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—		
Other Eastern hardwoods	1,492,198	98,580	908,516	81,510	862,714	98,580	311,883	393,147	—	—	—	—		
Total	3,504,736	302,246	1,896,709	198,638	2,354,745	302,246	963,178	961,097	128,224	1,401,565	128,224	128,224		
All species	8,513,489	1,301,435	4,371,849	203,889	4,164,325	1,019,853	1,614,683	1,401,565	1,401,565	1,401,565	1,401,565	128,224		

^a For yellow pines, tree grade is based on "Southern Pine Tree Grades for Yard and Structural Lumber," Research Paper SE-40, published by the Southeastern Forest Experiment Station, Asheville, NC, 1968. Tree grade 4 does not apply to yellow pine.

^b For other softwoods (excluding cypress), tree grade is based on "Tree Grades for Eastern White Pine," Research Paper NE-214, published by the Northeastern Forest Experiment Station, Radnor, PA, 1971.

^c For hardwoods and cypress, tree grades 1, 2, and 3 are based on "Hardwood Tree Grades for Factory Lumber," Research Paper NE-333, published by the Northeastern Forest Experiment Station, Radnor, PA, 1976. Grade 4 trees are sawtimber trees not qualifying as tree grades 1, 2, or 3. The butt log of these trees qualify as construction (tie and timber) logs based on "A Guide to Hardwood Log Grading (revised)," General Technical Report NE-1, published by the Northeastern Forest Experiment Station, Radnor, PA, 1971.

Table 38 — Cubic volume in the merchantable saw-log portion of sawtimber trees on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)											29.0 and larger
	All classes	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9				
<i>Thousand cubic feet</i>												
Softwood												
Longleaf pine	91,002	15,817	23,319	22,800	14,752	6,321	6,071	1,922				
Slash pine	284,174	57,362	66,305	65,596	39,863	29,685	17,103	8,260				
Shortleaf pine	—	—	—	—	—	—	—	—				
Loblolly pine	17,413	1,941	1,702	2,075	4,148	3,891	1,799	1,857				
Pond pine	38,158	7,549	7,162	6,328	4,666	5,514	3,155	3,784				
Virginia pine	—	—	—	—	—	—	—	—				
Pitch pine	—	—	—	—	—	—	—	—				
Table Mountain pine	—	—	—	—	—	—	—	—				
Spruce pine	—	—	—	—	—	—	—	—				
Sand pine	38,261	7,105	9,124	9,040	5,161	4,563	2,381	887				
Eastern white pine	—	—	—	—	—	—	—	—				
Eastern hemlock	—	—	—	—	—	—	—	—				
Spruce and fir	—	—	—	—	—	—	—	—				
Baldcypress	177,011	18,491	36,777	36,196	33,525	19,118	12,419	18,798				1,687
Pondcypress	321,313	97,947	105,899	64,181	31,802	13,542	3,044	4,428				470
Cedars	12,440	2,461	1,341	3,296	1,526	727	1,731	1,358				—
Total softwoods	979,772	208,673	251,629	209,512	135,443	83,361	47,703	41,294				2,157
Hardwood												
Select white oaks	588	—	—	—	—	—	—	588				—
Select red oaks	—	—	—	—	—	—	—	—				—
Chestnut oak	—	—	—	—	—	—	—	—				—
Other white oaks	93,980	—	3,524	5,491	7,286	7,736	7,424	29,326				33,193
Other red oaks	132,753	—	22,977	22,018	19,414	15,110	12,679	30,033				10,522
Hickory	19,976	—	880	2,537	2,017	5,557	3,827	4,632				526
Yellow birch	—	—	—	—	—	—	—	—				—
Hard maple	5,371	—	—	725	534	868	—	3,244				—
Soft maple	114,990	—	17,402	25,196	18,940	17,435	12,516	19,990				3,511
Beech	—	—	—	—	—	—	—	—				—
Sweetgum	49,824	—	6,848	11,347	9,835	5,366	4,368	10,028				2,032
Tupelo and blackgum	81,221	—	22,228	18,839	13,876	9,692	3,749	9,288				3,549
Ash	63,598	—	16,246	11,286	11,210	12,523	4,747	7,107				479
Cottonwood	—	—	—	—	—	—	—	—				—
Basswood	2,414	—	—	1,168	341	456	—	449				—
Yellow-poplar	—	—	—	—	—	—	—	—				—
Bay and magnolia	76,491	—	21,683	16,161	16,351	6,477	5,877	9,942				—
Black cherry	389	—	—	—	—	389	—	—				—
Black walnut	—	—	—	—	—	—	—	—				—
Sycamore	—	—	—	—	—	—	—	—				—
Black locust	—	—	—	—	—	—	—	—				—
Elm	15,357	—	2,855	3,560	2,258	2,408	1,979	1,613				684
Other Eastern hardwoods	4,460	—	1,782	595	1,262	—	447	374				—
Total hardwoods	661,412	—	116,425	118,923	103,324	84,017	57,613	126,614				54,496
All species	1,641,184	208,673	368,054	328,435	238,767	167,378	105,316	167,908				56,653

Table 39 — Total volume of live trees on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)													29.0 and larger
	All classes	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9		
<i>Thousand cubic feet</i>														
Softwood														
Longleaf pine	139,664	2,725	5,288	8,160	11,819	21,810	28,903	27,023	17,354	7,216	6,866	2,500		
Slash pine	523,708	6,762	19,174	52,811	91,996	84,030	82,997	77,568	45,897	33,628	19,239	9,606		
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—	—		
Loblolly pine	23,266	166	899	1,038	233	2,869	2,194	2,481	4,804	4,447	2,036	2,099		
Pond pine	59,302	98	1,423	2,985	6,933	11,213	8,947	7,588	5,852	6,337	3,607	4,319		
Virginia pine	—	—	—	—	—	—	—	—	—	—	—	—		
Pitch pine	—	—	—	—	—	—	—	—	—	—	—	—		
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—	—		
Spruce pine	—	—	—	—	—	—	—	—	—	—	—	—		
Sand pine	122,155	4,924	13,707	27,738	26,524	11,040	12,396	10,813	6,033	5,259	2,717	1,004		
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—	—		
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—	—		
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—	—		
Baldcypress	291,892	1,525	3,654	14,330	26,369	31,454	53,450	48,879	44,399	24,830	15,707	25,041	2,254	
Pondcypress	861,217	20,032	60,902	135,736	156,283	169,405	156,373	90,007	43,458	17,831	3,969	6,623	598	
Cedars	18,347	133	100	418	1,065	3,635	2,229	4,194	1,902	901	2,119	1,651		
Total softwoods	2,039,551	36,365	105,147	243,216	321,222	335,456	347,489	268,553	169,699	100,449	56,260	52,843	2,852	
Hardwood														
Select white oaks	1,011	26	—	—	—	—	—	—	—	—	—	—	985	
Select red oaks	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other white oaks	412,485	10,861	24,615	37,129	23,511	21,916	26,580	23,543	29,101	28,956	24,902	85,160	76,211	
Other red oaks	406,277	9,566	21,113	32,864	36,409	43,833	48,066	41,684	36,729	28,973	24,458	59,505	23,077	
Hickory	35,202	881	1,330	363	1,004	4,174	1,545	4,112	2,796	7,428	5,006	5,908	655	
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hard maple	8,538	161	126	1,104	—	—	—	1,102	736	1,170	—	4,139	—	
Soft maple	311,895	6,106	16,769	22,250	25,330	42,399	37,487	45,343	34,455	26,246	19,753	29,559	6,198	
Beech	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sweetgum	107,226	1,615	3,572	2,554	10,354	21,969	10,935	16,072	12,601	7,002	5,730	12,087	2,735	
Tupelo and blackgum	235,716	4,380	12,673	28,404	29,146	34,089	40,651	30,134	19,451	13,304	5,737	13,328	4,419	
Ash	215,434	7,919	14,909	29,050	30,791	37,289	28,108	18,152	16,985	16,696	5,811	9,161	563	
Cottonwood	—	—	—	—	—	—	—	—	—	—	—	—	—	
Basswood	3,907	—	—	—	289	—	359	1,673	450	579	—	557	—	
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bay and magnolia	262,487	11,826	28,562	28,851	30,209	39,359	41,262	27,667	22,743	8,579	9,212	13,817	400	
Black cherry	4,818	580	1,227	1,811	689	—	—	—	—	511	—	—	—	
Black walnut	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sycamore	—	—	—	—	—	—	—	—	—	—	—	—	—	
Black locust	—	—	—	—	—	—	—	—	—	—	—	—	—	
Elm	53,284	2,011	5,417	4,395	4,194	7,009	6,131	5,197	5,504	4,752	3,887	3,376	1,411	
Other Eastern hardwoods	125,294	19,956	23,478	20,610	15,711	18,419	9,069	8,139	5,286	1,985	1,048	1,613	—	
Total hardwoods	2,183,574	75,888	153,791	209,385	207,637	270,456	250,193	222,818	186,837	146,161	105,544	239,195	115,669	
All species	4,223,125	112,253	258,938	452,601	528,859	605,912	597,682	491,371	356,536	246,610	161,804	292,038	118,521	

Table 40—Green weight of forest biomass on timberland, by species and diameter class, Central Florida, 1995

Species	Diameter class (inches at breast height)														29.0 and larger
	1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-28.9				
Hundred thousand pounds															
Softwood															
Longleaf pine	111,636	2,222	4,548	5,947	9,193	17,164	23,172	21,792	14,114	5,850	5,591	2,043	—	—	—
Slash pine	407,633	4,618	17,705	38,738	70,664	65,336	64,988	60,766	35,838	26,454	15,035	7,591	—	—	—
Shortleaf pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Loblolly pine	16,799	77	532	738	213	2,056	1,614	1,819	3,502	3,231	1,492	1,525	—	—	—
Pond pine	42,331	50	819	2,177	4,983	8,067	6,361	5,562	4,217	4,517	2,536	3,042	—	—	—
Virginia pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pitch pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Table Mountain pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sand pine	83,962	3,844	11,109	16,577	17,851	7,746	8,725	7,535	4,314	3,624	1,948	689	—	—	—
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Eastern hemlock	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Baldcypress	215,051	867	2,319	7,364	16,132	21,669	39,030	37,195	34,702	19,877	12,798	21,112	1,986	—	—
Pondcypress	517,609	11,233	38,211	59,412	84,570	104,013	103,977	62,903	31,429	13,234	2,985	5,147	495	—	—
Cedars	13,099	80	66	298	823	2,594	1,616	2,998	1,392	658	1,427	1,147	—	—	—
Total softwoods	1,408,120	22,991	75,309	131,251	204,429	228,645	249,383	200,570	129,508	77,445	43,812	42,296	2,481	—	—
Hardwood															
Select white oaks	918	22	—	—	—	—	—	—	—	—	—	—	—	—	—
Select red oaks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chestnut oak	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other white oaks	373,363	8,198	18,578	20,133	18,517	19,261	24,457	22,252	28,044	28,174	24,566	84,749	76,434	—	—
Other red oaks	334,115	8,493	16,127	25,275	30,631	36,685	39,995	34,849	30,748	24,328	20,514	48,271	18,199	—	—
Hickory	29,702	788	1,193	226	749	3,364	1,278	3,512	2,316	6,291	4,218	5,149	618	—	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hard maple	7,638	128	112	788	—	—	—	1,031	703	1,018	—	3,858	—	—	—
Soft maple	228,855	4,625	11,968	15,475	19,297	31,866	27,724	33,760	25,499	19,197	14,256	20,909	4,279	—	—
Beech	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sweetgum	80,040	1,108	2,370	1,695	7,328	16,094	8,175	11,983	9,706	5,389	4,465	9,501	2,226	—	—
Tupelo and blackgum	152,185	2,950	8,380	14,352	17,623	21,569	26,569	20,501	13,490	9,429	4,136	9,858	3,328	—	—
Ash	139,838	4,957	9,430	22,734	22,083	24,574	17,419	10,791	10,024	9,456	3,279	4,807	284	—	—
Cottonwood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Basswood	2,846	—	—	—	217	—	315	1,164	337	413	—	400	—	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bay and magnolia	167,436	7,348	17,420	15,983	19,076	25,173	26,799	18,538	15,187	5,771	6,324	9,535	282	—	—
Black cherry	3,018	300	822	1,046	472	—	—	—	—	378	—	—	—	—	—
Black walnut	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sycamore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Black locust	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Elm	36,689	1,482	3,792	3,034	2,938	4,832	4,132	3,535	3,642	3,306	2,690	2,345	961	—	—
Other Eastern hardwoods	113,054	17,509	22,476	18,633	15,412	16,878	7,801	6,319	4,323	1,699	795	1,209	—	—	—
Total hardwoods	1,669,697	57,908	112,668	139,374	154,343	200,296	184,664	168,235	144,019	114,849	85,243	201,487	106,611	—	—
All species	3,077,817	80,899	187,977	270,625	358,772	428,941	434,047	368,805	273,527	192,294	129,055	243,783	109,092	—	—

Table 41—Average net annual growth and removals of live timber and growing stock on timberland, by species, Central Florida, 1988–1994

Species	Live timber ^a		Growing stock	
	Net annual growth	Annual timber removals	Net annual growth	Annual timber removals
<i>Thousand cubic feet</i>				
Softwood				
Yellow pines	27,059	22,684	27,050	22,350
Eastern white pine	—	—	—	—
Spruce and fir	—	—	—	—
Cypress	16,027	15,884	15,793	15,642
Other Eastern softwoods	168	—	180	—
Total softwoods	43,254	38,568	43,023	37,992
Hardwood				
Select white and red oaks	57	—	43	—
Other white and red oaks	15,106	8,597	10,010	5,015
Hickory	481	656	478	656
Yellow birch	—	—	—	—
Hard maple	173	71	241	71
Sweetgum	1,307	2,274	1,275	2,248
Ash, walnut, and black cherry	1,513	1,241	1,511	1,135
Yellow-poplar	—	—	—	—
Tupelo and blackgum	1,943	794	1,833	633
Bay and magnolia	4,810	1,492	4,289	1,312
Other Eastern hardwoods	4,121	3,188	3,699	1,439
Total hardwoods	29,511	18,313	23,379	12,509
All species	72,765	56,881	66,402	50,501

^a Merchantable portion only.

Table 42—Average net annual growth and removals of sawtimber on timberland, by species, Central Florida, 1988—1994

Species	Net annual growth	Annual timber removals
<i>Thousand board feet</i>		
Softwood		
Yellow pines	101,910	75,286
Eastern white pine	—	—
Spruce and fir	—	—
Cypress	71,014	40,928
Other Eastern softwoods	1,078	—
Total softwoods	174,002	116,214
Hardwood		
Select white and red oaks	294	—
Other white and red oaks	38,043	20,124
Hickory	2,991	2,929
Yellow birch	—	—
Hard maple	994	288
Sweetgum	5,948	7,403
Ash, walnut, and black cherry	5,651	3,208
Yellow-poplar	—	—
Tupelo and blackgum	7,727	1,368
Bay and magnolia	15,299	1,330
Other Eastern hardwoods	17,479	4,382
Total hardwoods	94,426	41,032
All species	268,428	157,246

Table 43—Average annual removals of growing stock on timberland, by species and diameter class, Central Florida, 1988-1994

Species	All classes	Diameter class (inches at breast height)									
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-22.9	23.0 and larger
<i>Thousand cubic feet</i>											
Softwood											
Yellow pines	22,350	2,317	4,920	3,973	4,223	2,618	2,139	1,186	604	291	79
Eastern white pine	—	—	—	—	—	—	—	—	—	—	—
Spruce and fir	—	—	—	—	—	—	—	—	—	—	—
Cypress	15,642	1,578	3,550	4,209	3,530	1,187	512	308	352	372	44
Other Eastern softwoods	—	—	—	—	—	—	—	—	—	—	—
Total softwoods	37,992	3,895	8,470	8,182	7,753	3,805	2,651	1,494	956	663	123
Hardwood											
Select white and red oaks	—	—	—	—	—	—	—	—	—	—	—
Other white and red oaks	5,015	419	417	285	203	324	271	584	623	1,459	430
Hickory	656	29	—	—	140	—	65	210	132	80	—
Yellow birch	—	—	—	—	—	—	—	—	—	—	—
Hard maple	71	—	—	—	—	71	—	—	—	—	—
Sweetgum	2,248	191	52	253	847	267	381	183	—	74	—
Ash, walnut, and black cherry	1,135	197	151	—	259	—	333	—	195	—	—
Yellow-poplar	—	—	—	—	—	—	—	—	—	—	—
Tupelo and blackgum	633	—	31	255	146	133	—	—	68	—	—
Bay and magnolia	1,312	170	402	434	139	—	—	—	67	—	100
Other Eastern hardwoods	1,439	132	76	229	146	—	422	181	67	186	—
Total hardwoods	12,509	1,138	1,129	1,456	1,880	795	1,472	1,158	1,152	1,799	530
All species	50,501	5,033	9,599	9,638	9,633	4,600	4,123	2,652	2,108	2,462	653

Table 44—Average annual mortality of live timber, growing stock, and sawtimber on timberland, by species, Central Florida, 1988—1994

Species	Live timber ^a	Growing stock	Sawtimber
	<i>Thousand cubic feet</i>		<i>Thousand board feet</i>
Softwood			
Yellow pines	8,156	7,989	32,127
Eastern white pine	—	—	—
Spruce and fir	—	—	—
Cypress	2,112	2,017	4,563
Other Eastern softwoods	214	165	592
Total softwoods	10,482	10,171	37,282
Hardwood			
Select white and red oaks	—	—	—
Other white and red oaks	5,246	2,921	12,846
Hickory	198	198	655
Yellow birch	—	—	—
Hard maple	85	—	—
Sweetgum	900	802	3,075
Ash, walnut, and black cherry	2,596	1,935	6,384
Yellow-poplar	—	—	—
Tupelo and blackgum	2,116	1,808	4,853
Bay and magnolia	3,133	2,324	4,905
Other Eastern hardwoods	8,775	4,334	13,128
Total hardwoods	23,049	14,322	45,846
All species	33,531	24,493	83,128

^a Merchantable portion only.

Table 45—Change in number of live trees on timberland, by species group, survey completion date, and diameter class, Central Florida

Species group and year	All classes	Diameter class (inches at breast height)							
		1.0-2.9	3.0-4.9	5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0 and larger
<i>Thousand trees</i>									
Yellow pine									
1988	169,398	59,666	37,696	27,089	18,497	10,913	7,780	3,981	3,776
1995	157,526	57,083	33,951	24,211	17,533	9,923	6,601	4,314	3,910
Change	-11,872	-2,583	-3,745	-2,878	-964	-990	-1,179	333	134
Other softwood									
1988	218,360	75,089	49,139	35,837	23,241	17,457	8,976	4,397	4,224
1995	179,496	63,384	40,771	27,239	18,347	12,711	9,138	4,369	3,537
Change	-38,864	-11,705	-8,368	-8,598	-4,894	-4,746	162	-28	-687
Hardwood									
1988	683,539	392,459	137,510	61,161	33,459	23,401	13,523	8,201	13,825
1995	597,115	329,307	126,761	55,412	29,599	21,806	12,929	8,059	13,242
Change	-86,424	-63,152	-10,749	-5,749	-3,860	-1,595	-594	-142	-583

Table 46—Land area, by land use class, major forest type, and survey completion date, Central Florida

Land use class	Survey completion date			Change 1988-1995
	1980	1988	1995	
<i>Acres</i>				
Forest land				
Timberland				
Pine and oak-pine types	953,669	868,585	843,949	-24,636
Hardwood types	1,520,006	1,446,755	1,279,485	-167,270
Total	<u>2,473,675</u>	<u>2,315,340</u>	<u>2,123,434</u>	<u>-191,906</u>
Reserved timberland	65,341	15,611	96,170	80,559
Woodland	67,286	90,310	99,706	9,396
Total forest land	<u>2,606,302</u>	<u>2,421,261</u>	<u>2,319,310</u>	<u>-101,951</u>
Nonforest land				
Cropland	1,239,604	1,286,140	1,264,488	-21,652
Pasture and range	3,869,187	3,707,618	3,509,605	-198,013
Other	2,201,637	2,470,266	2,757,148	286,882
Total	<u>7,310,428</u>	<u>7,464,024</u>	<u>7,531,241</u>	<u>67,217</u>
All land^a	<u>9,916,730</u>	<u>9,885,285</u>	<u>9,850,551</u>	<u>-34,734</u>

^a Excludes all water areas.

Table 47—Volume of sawtimber, growing stock, and live timber on timberland, by species group, survey completion date, and diameter class, Central Florida

Species group and year	All classes	Diameter class (inches at breast height)										21.0 and larger
		5.0-6.9	7.0-8.9	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9			
SAWTIMBER (in thousand board feet)												
Softwood												
1980	3,688,889	—	—	855,633	842,952	743,848	572,707	273,568	141,424	258,757		
1988	4,570,542	—	—	938,761	1,056,939	881,654	637,164	432,995	251,569	371,460		
1995	5,008,753	—	—	912,081	1,195,211	1,091,881	750,294	490,181	294,221	274,884		
Hardwood												
1980	2,360,441	—	—	—	372,027	366,327	366,584	302,256	247,995	705,252		
1988	3,099,782	—	—	—	496,532	489,953	420,225	437,827	322,916	932,329		
1995	3,504,736	—	—	—	564,446	585,545	527,892	445,829	316,631	1,064,393		
GROWING STOCK (in thousand cubic feet)												
Softwood												
1980	1,296,261	171,227	226,502	275,750	214,506	166,905	116,349	52,965	26,019	46,038		
1988	1,463,133	164,067	240,721	292,205	261,470	189,726	125,167	80,652	45,355	63,770		
1995	1,500,361	155,110	246,004	267,559	284,477	225,080	142,391	86,141	48,912	44,687		
Hardwood												
1980	858,973	72,059	97,871	110,939	124,727	103,384	92,710	69,840	53,736	133,707		
1988	1,052,692	78,719	105,761	146,138	152,954	127,754	99,770	97,012	67,237	177,347		
1995	1,134,560	78,556	114,352	162,966	164,290	146,255	118,774	93,531	62,917	192,919		
LIVE TIMBER^a (in thousand cubic feet)												
Softwood												
1980	1,315,350	177,751	229,582	279,415	217,996	167,750	116,726	52,964	26,019	47,147		
1988	1,484,918	168,773	245,542	296,394	264,379	190,652	126,449	81,583	45,355	65,791		
1995	1,513,668	156,579	247,591	270,353	286,377	226,136	144,032	86,478	48,912	47,210		
Hardwood												
1980	1,250,863	126,271	156,108	160,103	165,962	138,891	125,714	93,738	78,280	205,796		
1988	1,472,177	134,976	160,223	203,188	196,738	166,651	133,526	123,245	90,145	263,485		
1995	1,563,047	137,503	160,780	219,297	205,501	184,312	154,775	121,631	87,270	291,978		

^a Merchantable volume.



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Brown, Mark J. 1996. Forest statistics for Central Florida, 1995. Resour. Bull. SRS-2. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 45 p.

Since 1988, area of timberland in Central Florida decreased by 8 percent to 2.1 million acres. Nonindustrial private forest land ownership fell 11 percent to 1.6 million acres. The area classified as pine types declined 11 percent, to 623,000 acres. An average of 12,000 acres were harvested annually and retained in timberland. Regeneration averaged 17,000 acres annually; over half were planted. Average basal area increased from 69 to 71 square feet per acre. Volume of softwood growing stock increased less than 3 percent to 1.5 billion cubic feet, and volume of hardwood growing stock increased 8 percent to more than 1.1 billion cubic feet. Net annual growth decreased 31 percent, averaging over 66 million cubic feet. Average annual removals increased 16 percent to less than 51 million cubic feet. Mortality averaged more than 24 million cubic feet annually, up almost 8 percent.

KEYWORDS: Timberland, forest ownership, timber volumes, timber growth, timber removals.

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Southern Research Station

Established 1921

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To acquire the knowledge, develop the technology, and disseminate the research findings required to manage the Southern forest resources in ways that satisfy demands of goods and services while maintaining a quality environment.